## Summer Internships 2016

### Graduate Students

<table>
<thead>
<tr>
<th>Company</th>
<th>project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palantir</td>
<td>Forward Deployed Software Engineer</td>
</tr>
<tr>
<td>Rafael</td>
<td>Embedded Hypervisor Technology Evaluation for Mission Critical Systems</td>
</tr>
<tr>
<td>Outbrain</td>
<td>Outbrain 2015 Summer Internship Program</td>
</tr>
<tr>
<td>CodeValue</td>
<td>Developer role as part of CodeValue’s team of experts</td>
</tr>
<tr>
<td>Cisco</td>
<td>Plugins for TRex, an Open Source High-Speed Stateful Traffic Generator</td>
</tr>
<tr>
<td>Amdocs</td>
<td>Natural Language Dialog Management System</td>
</tr>
<tr>
<td>Mellanox</td>
<td>Summer internships no. 1</td>
</tr>
<tr>
<td>Mellanox</td>
<td>Summer internships no. 2</td>
</tr>
<tr>
<td>Mellanox</td>
<td>Summer internships no. 3</td>
</tr>
<tr>
<td>Mellanox</td>
<td>Summer internships no. 4</td>
</tr>
<tr>
<td>Mellanox</td>
<td>Summer internships no. 5</td>
</tr>
<tr>
<td>Mellanox</td>
<td>Summer internships no. 6</td>
</tr>
<tr>
<td>Check Point</td>
<td>Platforms automation framework</td>
</tr>
<tr>
<td>Check Point</td>
<td>Develop New smartphone app for check point products (iOS / android)</td>
</tr>
<tr>
<td>Check Point</td>
<td>Cloud based security feed &amp; automation channel</td>
</tr>
<tr>
<td>Check Point</td>
<td>Development of an internet simulation package</td>
</tr>
<tr>
<td>Check Point</td>
<td>Data mining</td>
</tr>
<tr>
<td>Check Point</td>
<td>Cloud Deployment Solutions software developer</td>
</tr>
<tr>
<td>Check Point</td>
<td>Document Protection for the Government and Defense industry</td>
</tr>
<tr>
<td>Check Point</td>
<td>iOS File Shares</td>
</tr>
<tr>
<td>Check Point</td>
<td>Automatic OSINT exploits IPS protections</td>
</tr>
<tr>
<td>Check Point</td>
<td>Threat Cloud Metrics Framework</td>
</tr>
<tr>
<td>Check Point</td>
<td>Analysis tools for large scale development building environment</td>
</tr>
<tr>
<td>Check Point</td>
<td>Automated testing of DevOps releases</td>
</tr>
<tr>
<td>Check Point</td>
<td>Simulator of hotfixes installation verification tool</td>
</tr>
<tr>
<td>Check Point</td>
<td>Various DevOps tasks</td>
</tr>
<tr>
<td>Check Point</td>
<td>Interlays Portal</td>
</tr>
<tr>
<td>Check Point</td>
<td>Industrial control system simulator</td>
</tr>
<tr>
<td>Check Point</td>
<td>Threat Intelligence Analysis Environment (Matan Mishan)</td>
</tr>
<tr>
<td>Check Point</td>
<td>Senior R&amp;D/Data scientist (Shaul Dar)</td>
</tr>
<tr>
<td>Check Point</td>
<td>Diagnostics Developer</td>
</tr>
<tr>
<td>Yahoo!</td>
<td>Call for summer intern candidates at Yahoo Labs, Haifa</td>
</tr>
</tbody>
</table>
Company: Palantir Technologies

Job description:
Forward Deployed Software Engineers (FDSEs) understand our customers’ greatest pain points and design end-to-end solutions to address them. FDSEs solicit constant feedback on their work from both customers and colleagues, improving our products over time with rapid iteration cycles.
FDSEs deploy cutting-edge technologies to solve our customers’ hardest problems. Projects often start with a nebulous question like “Why are we losing customers?” or “How can we more effectively identify instances of money laundering?” FDSEs are thought leaders and first movers in developing a solution, from high-level system design and prototyping to application development and data integration.
FDSEs work with customers around the world, where they gain unique insight into the world’s most important industries and institutions. We help our customers detect insider trading, improve disaster relief, fight healthcare fraud, and more. Each mission presents different challenges, from the regulatory environment to the nature of the data to the user population. FDSEs work to accommodate all aspects of an environment to drive real outcomes for our customers.

Required skills:
Our approach is to deploy whatever technology is best to solve the problem at hand. This often means that we are learning from the bleeding edge of the open-source community or developing our own tools. Recently, FDSEs have deployed:
• Postgres, Cassandra, Hadoop, and Spark for distributed data storage
• Java and Groovy for our back-end applications and data integration tools
• Typescript, AngularJS, jQuery, Backbone, Underscore, Leaflet, and d3 for our web technologies
• Python for data science and machine learning
• Internal frameworks for our rapid iteration tools

Full/part time position: Full time, internship based in USA.

Contact details:
Israel@palantir.com
Company: Rafael

Job description:
Operational System Hypervisors are a common technology in the server eco-system, however as a result of the hardware performance leap in the recent years; these requirements now apply to embedded systems as well. For example, running several virtual machines on a single board computer with a multi-core CPU could be a great solution to safety segregation, cyber defense, reuse of legacy code and more.

The job is to research the leading relevant technologies to a specific hardware and develop embedded software to test the performance of these technologies.

This component will be responsible to test the feasibility of running embedded software over a hypervisor in ARM based CPU on a mission critical system where high reliability, performance and cyber defense requirements are mandatory.

Required skills:
Knowledge in C++ (must), experience in Linux (must), experience in developing embedded systems with emphasis on ARM architecture (advantage).

Full/part time position: Full

Contact details: Koren Krupko korenk@rafael.co.il 050-4039503
Company: Outbrain Inc., the Web's leading content discovery platform, is seeking outstanding candidates for its 2016 summer internship program. The 3-month long position entails working in Outbrain's Recommendation Group, the algorithmic core of a global service that reaches hundreds of millions of unique users per month, serving them tens of billions of content recommendations. Working out of Outbrain's offices in Netanya, you will engage in cutting-edge big data technology - and push it forward. You will discover actionable insights in user interaction data, and will leverage those insights to improve our service.

Position requirements:
- Currently enrolled as a graduate student in Computer Science or a related discipline.
- Performing research in one of the following fields: machine learning, data mining, natural language processing, algorithmic game theory, mechanism design, information retrieval and statistics.
- Strong coding capabilities in Java and/or Scala.
- Excellent communication and interpersonal skills.
- Industrial experience is an advantage.
- Publication record is an advantage.
- Familiarity with Big Data platforms (e.g. Hadoop, Hive, Pig, Storm, Spark) is an advantage.
- Experience in working with large and complex data sets, databases (MySQL) and statistics/analytics tools (R, MATLAB) is an advantage.

Potential Projects: the project titles below, while perhaps opaque, should give a general idea of the type of problems interns should expect to tackle at Outbrain:

1. Leveraging the performance of duplicate stories across different websites for better recommendations.
2. Learning the relative value of categories, topics and entities for personalized content recommendation.
3. Identifying outdated documents.
5. Predicting users’ post-click engagement with recommendations’ landing pages.
6. Adaptation of recommendation algorithms on top of search engine infrastructure.
7. Predicting marketplace dynamics of auction mechanism modifications.

To apply: please send your CV to kshelef@outbrain.com Interviews will take place in early 2016.
Company: CodeValue

Job description: CodeValue is a leading software company delivering a full-spectrum of software services that enable customers to focus on their core business activities. The intern that will join us for the summer will be part of one of our teams and will enjoy close mentoring of leading software architects. All of our projects apply cutting edge current technologies and are based on Agile methodologies and DevOps practices.

Required skills:
- Knowledge in C#, .NET – a must
- Knowledge in WPF, XAML or Angular, HTML 5, CSS – an advantage

Full/part time position: Part to full time

Contact details: Yarin Chatuka YarinC@codevalue.net
Cisco System Netanya

Plugins for TRex, an Open Source High-Speed Stateful Traffic Generator

Company: Cisco System Netanya

Job description:
TRex is a high fidelity, low cost, high speed traffic generator developed as an open source project by Cisco System. More info can be found here. TRex is capable of generating and analyzing both L2-3 and L4-7 network traffic and as such satisfies stateful traffic testing needs by using a single tool.
TRex uses the bleeding edge of SDN/NFV hardware and software DPDK.
The objective of internship project is to add more capabilities to the traffic generated, such as:
1) Adaptive high speed event scheduler. There are two main scheduler algorithms and we need to find a way to find the right one in real time
2) SSL VPN client side using Intel Quick Assist and L7 pcap file as L7 traffic
3) High speed lock-less TCP stack (as an option). This capability would allow testing stateful features that terminate TCP (with more CPU overhead). The work includes performance analysis of various open source lock-less TCP stack implementations
4) SDK for high speed Application emulation layer using V8 JavaScript language

Required skills:
• Networking
• Linux
• DPDK
• C/C++/Algo

Contact details: hhaim@cisco.com 050-8639099
Amdocs

Natural Language Dialog Management System

Company: Amdocs

Position for M.Sc., Ph.D. students or post-doc

The role (title): Natural Language Dialog Management System

General background:

Amdocs is a leading company in delivering software for telecommunication providers around the globe. A major part of our value is driving the Customer Experience – which includes the customer interaction with care/operations at the Telecom provider. This area is undergoing a tectonic shift in recent years due to the introduction of intelligent (AI) virtual assistants for voice and chat.

Responsibilities:

Our objective is to use existing data on customer interactions via chat from major Telcos, and construct the foundations of a dialog management system for the care/support domain.

Amdocs will supply:

- Extensive database on interaction types and examples of actual customer interactions.
- Professional consulting of Customer Experience and call center experts, business background and interviews
- Office, computer and analysis tools.

Required skills:

An applied mathematics/computer science/computational linguistics background (M.Sc., Ph.D. students or post-doc)

Full/Part time position: Either full time or part time, for 3 months at least. At least 2 days a week at Amdocs office in Raanana.

Contact details:

Tsvi Lev, Head of the CTO Strategy Group tsvi.lev@amdocs.com 09-7762123
Mellanox

Company:

Mellanox Technologies, CTO Host Stack Software & Firmware Architecture Group

This summer, the Mellanox Advanced Development group is opening internship positions for the following projects:

- Apache Thrift acceleration- using OS bypass and RDMA
- Verbs for SocketDirect (QPI Bypass) – Exposing single RDMA device over multiple PCI functions
- Torch and CUDA offload with GPU Direct
- IO Visor and EBPF switching offloads to HW / HW simulator
- Driver based steering management – examine the possibility to “offload” ConnectX4 and HW steering structure to the driver including potential optimization that CPU can compile and apply
- QoS
  - Ingress QoS, Port arbiter
- Lossy RoCE – compare TCP and RoCE reliability protocol, ACK, NACK and retransmission scenarios, congestion management – how it works with no flow control.

Job description:

We are looking for self-sufficient system researchers for building high-performance data center platforms, in the areas of virtualization, cloud-native applications, congestion control and QoS, and analytics.

In each field, we will review the state-of-the-art platforms, and research methods for efficient distributed scaling of them based on emerging high-performance networking technologies.

The expected outcome is academic-grade analysis and proof-of-concept (POC) implementations.

Required skills:

- Solid background in data structures, complexity, algorithms, and OS design.
- Proficient programming skills.
- Self-sufficient researcher.
- Advantage for domain-specific knowledge in networking.

Full/part time position: Full-time or part-time for the duration of the internship.

Contact details: Tzahi Oved TzahiO@mellanox.com
Summer internships no. 2

Company: Mellanox Technologies, CTO team

This summer, the Mellanox CTO team is opening internship positions for the following projects: **Implement DRBD over RDMA for OpenStack and evaluate potential scalability and performance advantages**

Job description:
We are looking for self-sufficient system researchers for building high-performance data center platforms, in the areas of virtualization, cloud-native applications, congestion control, analytics, and machine learning.

In each field, we will review the state-of-the-art platforms, and research methods for efficient distributed scaling of them based on emerging high-performance networking technologies.

The expected outcome is academic-grade analysis and proof-of-concept (POC) implementations.

Required skills:
- Solid background in data structures, complexity, algorithms, and OS design.
- Proficient programming skills.
- Self-sufficient researcher.
- Advantage for domain-specific knowledge in big-data analytics and machine learning.

Full/part time position: Full-time for the duration of the internship.

Contact Details: Tal Anker, Sr. Principal Architect Ankertal@mellanox.com

Summer internships no. 3

Company: Mellanox Technologies, Switch Architecture Group

This summer, the Mellanox Switch Architecture group is opening internship positions for the following projects:

- **P4 implementation of SAI behavioral model** - Use P4 language to implement HW pipeline emulation that is aligned with a pseudo ASIC based on Switch Abstraction Interface (SAI) community definition. The work would be to participate with SAI community meetings, work with Mellanox SW architecture team to propose a behavior model, implement the model in P4 and present it in an OCP conference.

- **Improving simulation scale/ calibration** -
Participate in the end to end simulation framework of Mellanox to implement NIC/switch logic in omnet simulation tool. The results of the work would be to predict how data center algorithms function at large scale topology.

Contact details: Aviad Raveh, Principal Architect  aviadr@mellanox.com

---

**Summer internships no. 4**

**Company:** Mellanox Technologies, Switch Architecture Group

**Position:** SW Arch Intern Student

**Job description:**
This summer, the Mellanox Switch Architecture group is opening internship positions for the following projects:

- **Lossless Ethernet – pause frame loop**
  - In the design of routing algorithms, one has to be careful to avoid deadlock situations. Lossless Ethernet uses a priority base flow control scheme in hardware. Though, cyclic dependencies among input buffers can lead to a situation where all clients are waiting for Xon(input buffer is available) and the network is effectively deadlocked. The idea is to discover and analyze way to avoid such deadlocks E.g. loop free routing protocol, loop free topology.
  - Or to provide mechanism to resolve deadlocks E.g. head of the line Drop

- **Advance InfiniBand routing (multicast and unicast support for non-directly attached network)**
  - Up till recently IB fabrics were I2 centralize network. Recently a need to support L3 InfiniBand router was emerge, in order to increase scale and provide isolation between different IB subnets. The questions are:
    - Should we stick with the centralize approach moving forward to IB router support? Or should be move to IP like distributed approach?

- **P4 model for next-gen silicon**
  - P4 an open source language allowing the specification of packet processing logic based on a Match Action forwarding model.
    - Having such language will provide a standard way to describe a HW pipeline
    - More even it will provide a way the test the HW architecture pre coding.
    - Does the P4 language suitable to those prepossess can it described a real HW pipeline?

- **Run SDK on top of P4 model** (generate an EMAD interface for the P4 tables)
  - P4 an open source language allowing the specification of packet processing logic based on a Match Action forwarding model.
    - I addition it there is a compiler the compile the P4 pipeline into
Behavioral model including APIs to manage the packet processing tables

- We want to use the P4 language in order to describe mellanox HW pipeline
- Then we want to connect Mellanox SDK to P4 table API.
- This will enable application and driver developer to run there code on a HW emulator

Full/part time position: Full-time for the duration of the internship.

Contact details: Matty Kadosh mattyk@mellanox.com

Summer internships no. 5

Company: Mellanox Technologies, CTO Advanced Development Group

This summer, the Mellanox Advanced Development group is opening internship positions for the following projects:

- Accelerated RDMA VM migration
- Lossless network tunnels with HW congestion control
- Micro-service network pipes
- Accelerated in-memory analytics using Spark
- Accelerated Machine Learning using TensorFlow

Job description:
We are looking for self-sufficient system researchers for building high-performance data center platforms, in the areas of virtualization, cloud-native applications, congestion control, analytics, and machine learning.

In each field, we will review the state-of-the-art platforms, and research methods for efficient distributed scaling of them based on emerging high-performance networking technologies.

The expected outcome is academic-grade analysis and proof-of-concept (POC) implementations.

Required skills:
- Solid background in data structures, complexity, algorithms, and OS design.
- Proficient programming skills.
- Self-sufficient researcher.
- Advantage for domain-specific knowledge in big-data analytics and machine learning.

Full/part time position: Full-time for the duration of the internship.

Contact details: Liran Liss, PhD liranl@mellanox.com
Company: Mellanox Technologies, Switch Architecture Group

Job description: This summer, the Mellanox Switch Architecture group is opening internship positions for the following projects:

- Interaction of adaptive routing with congestion control -

Adaptive routing is a novel scheme for equal-cost multi-paths networks in which the routing is set dynamically based on the congestion state of the network. The aim of the project is to analyze adaptive routing algorithms and their interactions with congestion control algorithms.

- RoCE congestion control analysis and improvements -

RoCE (RDMA over Converged Ethernet) is a novel hardware-based transport protocol implemented in Mellanox network cards. In order to provide scaling, lately was introduced preliminary version of congestion control algorithm for RoCE. The aim of the project is to analytically analyze the RoCE congestion control, provide optimized configuration values and suggest extensions for its next versions.

- Mice and elephants traffic detection and scheduling -

Data center traffic is characterized by diverse types of traffic. Some of the flows, such as file transfers are long and bandwidth consuming, hence called elephants. Some of the flows are latency sensitive short transactions, hence called mice. Without proper quality of service (buffering, scheduling etc.) network configuration, elephant flows have drastic negative impact on mice flows performance. In addition, there is a challenge of automatic and fast detection of flow type. The aim of the project is to characterize different types of traffic flows, define detection algorithms for each type and suggest quality of service network configuration in order to optimize the overall network performance.

- SHArP resource allocation algorithms -

SHArP is novel protocol for offloading MPI collectives toward the network nodes. Network nodes (switches) have limited resources (eg. buffers) that can be assigned for the offloaded operations. Major part of the SHArP framework is resource allocation scheme to provide fairness, consistency and performance assurance for the running MPI jobs. The aim of the project is to define and analyze optimal SHArP resource allocation algorithms.

Requirements:
All the projects require good programming skills (C++), analytical skills and academic writing skills. The aim is to utilize project results in future products, patents and academic papers.

Contact details: Alex Shpiner, PhD alexhp@mellanox.com
Check Point

Platforms automation framework

**Company:** Check Point is a pioneer in the IT security industry. Since 1993, it has been the industry leader in network security technology, with the release of FireWall-1 and with its patented Stateful Inspection Technology. Check Point’s success is based on constant technological innovation and a customer-driven philosophy, as well as a relentless focus on providing comprehensive, innovative security.

When you join Check Point, you become part of a driven and creative team dedicated to delivering innovative technologies and industry-best protection in this ever-changing threat landscape.

At Check Point, we secure the future. Join us and secure your future with us!

**Job description:** Develop a new framework for automatic testing. Create an automation of testing environment, allowing developers to verify their work by a click of a button. The project will explore the framework that would allow these tests to be written and executed.

**Required skills:** Java, C knowledge.

**Full/part time position:** Both.

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

**Develop new smartphone app for check point products (iOS / android)**

**Company:** Check Point

**Job description:** develop a new mobile app for easy operation of Check Point products. This new app will take our operations to the next level in terms of user-experience and simplicity.

**Required skills:** iOS/Android development environment, Basic networking.

**Full/part time position:** Both

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

**Cloud based security feed & automation channel**

**Company:** Check Point

**Job description:** Develop a cloud based service that will receive security events from security devices around the globe via web services. The service will store the events and present
them via a “Facebook-like” feed to the customer who owns the security device. In addition, the service will provide an IFTTT channel to allow customers to create automation rules based on these events.

For example:
• Send me an Android push notification when a virus entered my network
• Blink the lights in my living room if someone in my home browses to an inappropriate site

**Required skills:**
• Java programming – Must
• Knowledge in web services or REST services – Must
• Knowledge in SQL database - Nice to have
• Knowledge in web development - Nice to have
• Familiarity with IFTTT automation protocol - Nice to have

**Full/part time position:** Full

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

**Development of an internet simulation package**

**Company:** Check Point

**Job description:** In this project we will integrate a network simulator into our malware lab infrastructure in order to harvest as much information as possible.

**Required skills:** Python – must, network protocol understanding – advantage

**Full/part time position:** Full

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

**Data mining**

**Company:** Check Point

**Job description:** The overall goal of the data mining process is to extract information from a data set and transform it into an understandable structure for further use. The goal is the extraction of patterns and knowledge from large amount of data.

**Required skills:** Python, algorithms, familiarity with data mining / machine learning, security - advantage

**Full/part time position:** Full
Cloud Deployment Solutions software developer

Company: Check Point

Job description: Develop a reporting tool to be used by company managers for reflecting usage of deployment cloud services by Check Point customers, and for monitoring service availability

Required skills: C/C++, JavaScript

Full/part time position: Full

HR contact: Nirit Shechter nirits@checkpoint.com

Document Protection for the Government and Defense industry

Company: Check Point

Job description: Research of PKI, Two factor authentication research & implementation in C++. Public Key Infrastructure research & implementation in C++.

Required skills: Basic knowledge of Windows Internals and Network Protocols (HTTP/HTTPS), Object Oriented knowledge, C++ programming experience, Research and automatous learning skills

Full/part time position: Full

HR contact: Nirit Shechter nirits@checkpoint.com

iOS File Shares

Company: Check Point

Job description: Develop iOS application to work with remote file shares. Coding for iOS mobile devices using Objective C with the latest development tools and frameworks. Some PHP for backend support. Create a working solution that will find its way into Check Point Capsule Workspace application in the app store.

For more information about Capsule Workspace please visit www.checkpoint.com/capsule

Mobile development is a very hot and required qualification.

Required skills:

- Eager & capable of learning new technologies autonomously
- Hard working, serious & autonomous developer
- Good coding skills
- Prior objective C experience is a major advantage

**Full/part time position:** 300 hours part or full

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

**Automatic OSINT exploits IPS protections**

**Company:** Check Point

**Job description:** Develop a new tool that accesses OSINT resources and automatically creates IPS Protections over publicly known exploits.

The developer will explore various OSINT resources, such as Exploit DB and Virus Total, investigate the data received by these resources and will write a tool that automatically creates PCAPs and IPS protections, possibly using additional existing tools for automatic protections creation.

**Required skills:** Python/C#, C

**Full/part time position:** Full

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

**Threat Cloud Metrics Framework**

**Company:** Check Point

**Job description:** Develop a new framework and UI for automatic monitoring, testing and analysis of Threat Cloud data. The framework will allow following and improving malwares detection rate, identify and prevent false positives, test the impact of new data, and correlate statistics from different sources.

**Required skills:**
- Knowledge in web client & server programming – Must
- Knowledge in SQL database – Must
- Java programming – Nice to have
- AngularJS programming – Nice to have
- REST web services programming – Nice to have
- Knowledge in Big Data technologies – Advantage
- Familiarity with automatic testing – Advantage

**Full/part time position:** Full

**HR contact:** Nirit Shechter nirits@checkpoint.com
Analysis tools for large scale development building environment

**Company:** Check Point

**Job description:** Develop various tools to measure and analyze in real time different aspects of our large scale of development building environment for better monitoring & decision making. Including: actual build monitor load, black listing servers algorithm per different criteria, performance and productivity measurements, reports generation and automatic notifications.

**Required skills:** Scripting languages. Unix – an advantage

**Full/part time position:** both

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

Automated testing of DevOps releases

**Company:** Check Point

**Job description:** Develop testing automation tools to support our ongoing DevOps releases as part of our SCRUM cycles, including: define and design tests, develop simulators & reports

**Required skills:** Scripting languages. UNIX – an advantage

**Full/part time position:** both

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

Simulator of hotfixes installation verification tool

**Company:** Check Point

**Job description:** Continue developing the proof-of-concept tool and improve it to make in on production level.

**Required skills:** Scripting languages

**Full/part time position:** both

**HR contact:** Nirit Shechter nirits@checkpoint.com
Various DevOps tasks

**Company:** Check Point

**Job description:** Improvement of our development environment and infrastructure with various tasks related to building, packaging, algorithms improvements, bug fixes, better warning and errors mechanisms and more.

**Required skills:** Scripting languages.

UNIX – an advantage

**Full/part time position:** both

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

Interlays Portal

**Company:** Check Point

**Job description:** Develop a new framework and UI for automatic monitoring, testing and analysis of Intelisys data.

The framework will allow following and improving Intelisys data, identify failures on customers’ deployments and server’s correlations, test the impact of new data and correlate statistics from different customers.

**Required skills:**
- Knowledge in web client & server programming – Must
- Knowledge in databases – Must
- Java programming – Nice to have
- AngularJS programming – Nice to have
- REST web services programming – Nice to have
- Knowledge is Solr DB - advantage
- Knowledge in Big Data technologies – Advantage
- Familiarity with automatic testing – Advantage

**Full/part time position:** Full

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

Industrial control system simulator

**Company:** Check Point

**Job description:** The industrial control system simulator will be used by R&D and QA to mimic customer end to end environment for research and testing. The project will cover:
• Design an automated industrial scenario to simulate.
• Develop a human machine interface (HMI) application and industrial control system logic (PLC) that simulate the control of the industrial scenario using a SCADA network protocol.
• Develop attack scripts on the simulated system.

**Required skills:**
• Experience in Java and/or C#
• Practice networking and TCP/IP
• Quick and creative solution finding abilities
• High orientation to details

**Full/part time position:** Full

**HR contact:** Nirit Shechter nirits@checkpoint.com

**Threat Intelligence Analysis Environment (Matan Mishan)**

**Company:** Check Point

**Job description:** Programming - New technology integration (internal start-up – Utopia project)

**Required skills:**
• Degree in computer science or equivalent (BSC / BA)
• Experience in Python (Mandatory) and one additional programming language such as Java.
• Experience in Web development – Bonus
• Good knowledge in Linux, ESX, virtualizations and Networking - Bonus
• Performance critical large scale project development - Bonus

**Full/part time position:** Full

**HR contact:** Nirit Shechter nirits@checkpoint.com

**Senior R&D/Data scientist (Shaul Dar)**

**Company:** Check Point

**Job description:** Design and develop novel data driven solutions that have the potential to deliver game changing results.

Lead the research and development of a new innovative product for cyber security, involving correlation algorithms, machine learning, and performance and scalability optimizations.

Quickly iterate on design approaches and POCs based on data and user feedback.
Push the solutions all the way to delivery on large scale production systems. Understand the architectural constraints, integration and operational needs of such systems and work with a cross-organizational engineering and product team to quickly transition from prototype to a scalable robust implementation.

**Required skills:**
- Bright, out of the box thinker, motivated, quick learner, goal driven, focused.
- Proven ability to build and deliver solutions in a short time frame.
- Team player, strong communication skills, good English.
- Good knowledge of at least one scripting language, preferably Python.
- Research background, algorithms, statistics, machine learning, large data set analysis – an advantage.
- Background in networking – an advantage. Cyber security background – a big advantage
- SQL, Java, JDBC, ORM/Hibernate, Spring, Maven – an advantage.
- Big Data (Hadoop, NoSQL, Solr, Spark, Elastic Search) – an advantage.
- Familiarly with Linux, Java open source frameworks and tools – an advantage.

**Full/part time position:** Full

**HR contact:** Nirit Shechter nirits@checkpoint.com

---

**Diagnostics Developer**

**Company:** Check Point

**Job description:** Develop & Support SW diagnostics tools for Check Point’s security gateway. It includes CPInfo, CPView, CPSizeme and future projects such as sending health metrics to Check Point cloud and providing customers with better diagnostics tools.

We are offering 3 projects in this position:

1. **Develop advanced and exciting machine learning models and techniques such as deep learning to identify malwares based on data collected via different channels and methods**
   Technologies:
   - Machine Learning
   - Python/R
   - C/C++/Java
   
   **Required skills:** Previous machine learning knowledge

2. **Help develop the next generation diagnostics tools for monitoring and diagnosing Check Point’s products deployed in the field. This includes telemetries collection, storage and analysis**
   Technologies:
   - C/C++/C#
   - Windows/Linux
   - Automation
3. Internet-Of-Things security research – analyze protocols and attack vectors in the world of IoT and develop proof of concepts to address those attacks. Technologies:
   IoT products
   Protocols such as Zigbee
   Cloud

Full/part time position: Full

HR contact: Nirit Shechter nirits@checkpoint.com
Yahoo!

Call for summer intern candidates at Yahoo Labs, Haifa

Company: Yahoo Labs is looking for exceptional PhD students to work with us in our intern program for the summer of 2016. We seek world-class graduate students in pursuit of a PhD in Computer Science, EE, Mathematics, Statistics, or a related area. Preference will be given to PhD candidates passionate about Search (Distributed Systems, ranking, experiences etc.) and Natural Language Processing, Machine Learning (including Recommender Systems), Algorithms, Mobile Innovations/Computer-Human Interaction and Computational Advertising. Ideal candidates will have finished at least 2 years of graduate work.

Interns are expected to work with our research scientists/engineers to perform original research, apply scientific thinking and techniques to improve the performance and effectiveness of our products, and solve problems for our users and advertisers by analyzing mountains of data. They will have the opportunity to publish their work and expand the horizons of web science.

Required skills:
• Currently enrolled as a PhD student at an elite university
• Strong coding capabilities in Java/C++
• Good communication skills and a creative mind
• Scientific background in areas of interest to Yahoo is an advantage
• Industrial experience is an advantage
• Proven publication record in leading conferences/journals is a preference
• Familiarity with MapReduce/Hadoop is a plus

Internship goals:
The successful candidate will work with Yahoo Labs scientists and engineers on research projects stemming from real-world Web challenges. This will require both solid development skills and superior analytical skills in order to formalize novel models and approaches at the cutting edge of Internet Science. A successful summer internship will include the submission of at least one paper to a leading conference such as WSDM, WWW, SIGIR, KDD, OSDI or ACL.

Candidates will need to submit a CV plus a letter of recommendation from their graduate advisor.

Please send applications to: israeljobs@yahoo-inc.com