

Michael Markovitch

E-Mail: mmarkovi@cs.brown.edu

Education

- 2016 – Present **PhD Student in Computer Science**, Brown University, USA.
- 2014 Research internship at TU-BERLIN, Germany. Led to a paper presented at ICNP 2015.
- 2012 – 2014 **M.Sc. in Communication Systems Engineering**, Ben-Gurion University, Israel. Graduated with honors.
- 2000 – 2004 **B.Sc. in Electrical and Electronic Engineering**, Tel Aviv University, Israel.
B.Sc. in Physics, Tel Aviv University, Israel.
A special honors program earning two degrees simultaneously in a four-year span.

Honors and Awards

- 2016 Brown University Presidential Fellowship

Professional Experience

- 2018 Flowmill, Intern
- Designed and implemented modifications to the Prometheus real time database in order to convert it to a scalable distributed database (Prometheus is written in Go).
- 2015 – 2016 Cyberint, Data Scientist
- Text analysis and classification using Machine learning (mainly SVM).
- 2004 – 2011 Israel Defense Force, Telecommunication Systems Engineer
- Service in the Communication corps technological unit (LOTEM), Projects & Systems Division, as a Senior Academic Officer (Captain).
- Designing and system engineering of complex IP and **IP/MPLS** networks – assessing demands, defining services (e.g. L3VPN, L2VPN), and proposing implementation solutions utilizing **Quality of Service (DiffServ)**.
 - Defining the technical network and transport layers specifications for security elements. Familiarity with threat models for communication systems and services.
 - Performed research and Proof of Concept experiments, such as a GRE overlay network (with **multicast** services) over **IPSEC** tunnels.
 - Wrote RFI for **Carrier Ethernet** Transport (P2P Ethernet services– EPL and EVPL) and Metropolitan Area WDM systems.
 - Received the unit's professional excellence award

Publications

- A. Galakatos, M. Markovitch, C. Binning, R. Fonseca, T. Kraska, A-Tree: A Bounded Approximate Index Structure. arXiv:1801.10207
- M. Markovitch and S. Schmid, SHEAR: A Highly Available and Flexible Ethernet Architecture Marrying Distributed and Logically Centralized Control Planes. ICNP 2015.
- M. Markovitch and G. Scalosub, Bounded Delay Scheduling with Packet Dependencies. IEEE INFOCOM 2014 Workshop on Communication and Networking Techniques for Contemporary Video, 2014.

Teaching Experience

- 2017 – 2018 Brown University, Graduate Teaching Assistant, CS1680: Computer Networks.
- 2013 – 2016 Ben-Gurion University, Teaching Assistant - Computer Communication Networks 2. Covering IP networking (IPv4 addressing, IGP routing protocols, BGP and Multicast), TCP, UDP and DNS.
- 2013 – 2016 Ben-Gurion University, Instructor - Advanced Networks Laboratory. Designed teaching labs covering OSPF, MPLS and VPNs (L3 and L2).

Skills

Programming languages – Python, Matlab, C, and Go.

Understanding of all the communication layers, from TCP/UDP to fiber optics.