

Guy Eichler

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Education

Columbia University in the City of New York – New York, New York

- **MS/PhD track in Computer Science** started Sep. 2018.
- **Awarded MSc in Computer Science**, Feb. 2020.
- **Graduate research assistant**, System Level Design group (SLD) - <https://sld.cs.columbia.edu/>.
- **Emphasis:** Computer Architectures, Logic Design, Heterogeneous Systems, Brain-Computer Interfaces, Cryptography.
- **Projects and Research Interests:** Brain-Computer Interfaces, Cryptography, HW Accelerators, HW security, AI, ML, DL.
- **Relevant Coursework:** System-on-Chip Platforms, Embedded Scalable Platforms, Data Bases, AI, Neurobiology, Adv. Cryptography.

Technion – Israel's Institute of Technology – Haifa, Israel

- **BSc in Electrical Engineering**, class of 2016.
- **Emphasis:** Computer Engineering, Signals & Image Processing and Biological Signals & Systems.
- **EE department honors (2014-2016)** – US Grade Conversion GPA: 4.0 (“ForeignCredits” website).
- **Projects:** Mapping and simulating the Hodgkin-Huxley model, and IoT system for ECG signal processing.
- **Relevant Coursework:** Computer Architecture, Bio-Signals, Optimization, Vision & Auditory Systems, Image Processing & Analysis.

Honors & Awards

- **Dean's List** for outstanding academic achievements (2014, 2015, 2016).

Main Publications

- “MasterMind: Many-Accelerator SoC Architecture for Real-Time Brain-Computer Interfaces,” ICCD, October 2021.
<https://www.youtube.com/watch?v=9a5gRrlgHRc>

Work Experience

Columbia University in the City of New York – New York, New York 2018 – Present

- **Graduate Research Assistant (GRA) – MS\PHD** – System Level Design Group, Computer Science Department.
- **Teaching Assistant (TA)** – System-on-Chip Platforms, Fall '19. System-on-Chip Platforms, Fall '21.
- **BISC project** – Implantable neural interface system for signal resolution and data transfer between the brain and the digital world.

IBM Israel Ltd. - Haifa, Israel 2015 – 2018

Hardware Development Engineer

- **Verification and logic design** - IBM POWER9 (P9) and POWER10 (P10) processors – Linux, Eclipse, and C++.
- Machine learning/Deep Learning (ML/DL) accelerators – IBM's cognitive hardware.

Elbit Systems Ltd. – Software and System Engineering Department – Haifa, Israel 2011 – 2012

Application Programmer

- Design software applications for data analytics designated for intelligence organizations.

Israel Defense Forces - Intelligence Corps – Unit 8200 - Israel 2008 – 2011

Squad Leader – Staff Sergeant

- **Led a team of 11 soldiers** - Extraction and analysis of special intelligence, project management.
- **Shift Manager** – Supervised up to 25 people simultaneously, distributed urgent real-time assignments.
- **Course Instructor** – Created educational content and coursework about intelligence affairs.
- Experience with **communications and network technology, data extraction tools**.

Volunteer Experience

MDA – Magen David Adom - First Aid
Think Positive – Mentor for children
ATID – Tutor for math and language

Programming Skills

C, C++, SystemC
Python
MATLAB
VHDL, Verilog, System Verilog

Languages

Fluent English
Fluent Hebrew
Intermediate Arabic
Conversational Spanish