Hadi Rayan Al-Sandid

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EDUCATION

Ecole Polytechnique   Palaiseau, France
MSc&T, Internet-of-Things : Innovation and Management   September 2021 - August 2023
GPA : 3.93/4.0
Courses: Computer Networking - IoT Workshops - Business Models in the Digital Era

American University of Beirut   Beirut, Lebanon
Bachelor of Engineering, Computer and Communications Engineering   September 2017 - August 2021
GPA : 3.7/4.0, Graduated with Distinction
Courses: Software Architecture and Design - Embedded Systems - Cloud-based Services

EXPERIENCE

Cisco Meraki   Paris, France
Software Engineering Intern   April 2022 - August 2022

- Implemented framework to enable local performance testing of Meraki data-planes, using C++/Python/Bash.
- Conducted performance tests to estimate data-plane performance, and identify software bottlenecks and bugs.
- Wrote design documents assessing framework design alternatives, and documentation for framework usage.
- Participated in MX team operations, by assisting to weekly meetings and preparing internal presentations to gather feedback.

American University of Beirut   Beirut, Lebanon
Research Assistant (Google AI-Impact Challenge 2018 Grantee Project)   August 2019 - August 2021

- Development of an irrigation optimization system for Lebanese agricultural fields, using Raspberry-Pi and Python/Bash scripts.
- Designed custom PCBs to support additional wireless modules (LoRa/GSM).
- Wrote documentation on irrigation system characteristics, as well as available APIs.
- Development of an Android application allowing farmers to access their field data

PUBLICATION

Arrow: RISC-V Vector Accelerator for Machine Learning Inference
Presented in the Fifth Workshop on Computer Architecture Research with RISC-V (CARRV 2021)

- Participated to the development of Arrow, a design-time configurable hardware vector accelerator.
- Experimented with the GNU/GCC RISC-V cross-compiler and the RISC-V v0.9 vector ISA extension to optimize code for Arrow
- Developed benchmarks to test performance of ML-related instructions with Arrow , showing that it can execute subsets of vector and matrix benchmarks fundamental to machine learning inference 2x to 78x faster than a scalar RISC processor.

SKILLS SUMMARY

- **Programming**: Proficient in C/C++. Familiar with Python, Java, Bash scripting.
- **Networking**:   Familiar with network configuration and routing on Linux.
- **Languages**:   French (Native tongue), English (Professional proficiency), Arabic (Conversational)
- Teamwork & technical communication skills, to manage projects and present key information to project stakeholders.
- Can adapt to new environments and technologies.

AWARDS AND INTERESTS

- Involved regularly in team sports and outdoor activities, including Hiking, Tennis, and Football.
- Participated in "Big Data AI and Media Hackathon 2019" organized by Anghami and Touch (Beirut).
- Participated in "Google Hash Code 2020" (Remote)