Nebil Ozer

nebilaozer@gmail.com | linkedin.com/in/nebil-ozer | 240-364-4164 | https://github.com/Ozen7

EDUCATION

University Of Virginia — August 2025 - Present
PhD Candidate - Department of Computer Science — *Charlottesville, VA*
Advisor: Professor Sandhya Dwarkadas - ARCH Lab

University Of Maryland, College Park — August 2021 – December 2024
B.S. In Computer Science; GPA: 3.91 — *College Park, MD*

SKILLS

Research Interests: SoC Engineering, Realtime Systems, Computer Architecture, Domain-Specific Acceleration
Proficient Languages: C/C++, Python, Java, Javascript/Typescript, SQL, Rust, Assembly, Ocaml
Tools: gem5, Ramulator 2.0, LLVM, CMake, CUDA, TensorFlow, SuiteSparse, Cython, VHDL, Git, Linux/Unix
Personal Skills: Resilient, Fast Learner, Detail Oriented, Good Communicator

PUBLICATIONS

N. Ozer, G. Kollmer, R. Hadidi, B. Asgari. "La Superba: Leveraging a Self-Comparison Method to Understand the Performance Benefits of Sparse Acceleration Optimizations." *IEEE ISPASS 2025*, Ghent, Belgium, pp. 1–12. doi: 10.1109/ISPASS64960.2025.00038

RESEARCH EXPERIENCE

Graduate Research Assistant — August 2025 - Present
ARCH Lab — *University of Virginia*

- Conducted independent research under the guidance of Professor **Sandhya Dwarkadas**
- Performed extensive literature review on Domain-Specific Systems on Chip (DSSoC) and PIM acceleration.
- Currently researching dynamic DSSoC scheduling algorithms for realtime applications
- Simulating DSSoC systems using **gem5-SALAM, DS3** to optimize scheduling algorithms

Knight Captain (Undergraduate Researcher) — January 2024 - May 2025
CASL (Computer Architecture & Systems Lab) — *University of Maryland*

- Conducted independent research under the guidance of Professor **Bahar Asgari**
- Research focus: Sparse Matrix Multiplication domain-specific acceleration - culminated in a Conference paper
- Developed cycle-accurate simulators of SpGEMM Accelerators: ExTensor, MatRaptor, SpArch, Gamma
- Built a wrapper for **Ramulator** in order to augment simulation of ASIC chips

INDUSTRY EXPERIENCE

Software Developer Engineer Internship — June 2024 - September 2024
Amazon (AWS) — *Seattle*

- Researched and developed a **web-based** customer onboarding interface, replacing a command-line workflow.
- Analyzed legacy systems in-depth to propose **efficient, scalable**, and **user-friendly** solutions.
- Built functional Proof of Concept using **AWS Lambda, EC2, ECS and VPC**, presented results to senior SDEs

Part/Full-time Software Engineer Internship — January 2023 - May 2024
S&C Electric Company — *Remote*

- **Designed, Architectured, and Developed** Desktop and Mobile apps in **Typescript** using **React**.
- Made extensive use of **Docker/Docker-Compose** to package and deploy projects to the cloud.
- Setup **Jenkins** pipeline for internal tools, and implemented **Sonarqube** to glean insights on code quality.

Software Engineer Internship — May 2022 - August 2022
S&C Electric Company — *Remote*

- Worked in a team of SWEs and Interns to develop an IoT system & a sister **React Native** app.
- Found missing functionality in a popular **Bluetooth Low Energy** repository, contributed code to patch it.
- Used Cypress testing software to write 20+ comprehensive **REST API** tests using the **SRP-6** Auth protocol.