Neema Rory Zahedi

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Education

M.S. Computer Science

Mar. 2022-Jun. 2023

University of California, Santa Barbara

GPA: 4.0

• Emphasis in Computer Systems; focusing in Computer Architecture research in UCSB's ArchLab

B.S. Computer Science

Sept. 2018–Mar. 2022

University of California, Santa Barbara

Computer Science GPA: 3.80

• Coursework: Computer Architecture, Artificial Intelligence, Machine Learning, Databases, Computer Networks, Software Defined Networking, Data Structures & Algorithms, Operating Systems, Probability and Statistics, Object Oriented Programming, Compilers, Cryptography

Experience

HRL Laboratories Sep. 2022–Jan. 2023

Robotics Software Engineer Intern

Malibu, CA

Cupertino, CA

• Prospective intern using ROS to program new functionality for HRL's marine research robot

AppleHeadphones, Accessories, and Systems Software Engineer Intern

 $\mathbf{Jun.~2022}\mathbf{-Sep.~2022}$

• Piloted prototype and foundation for upcoming Apple Airpods features for IOS, interfacing on the audio, systems, and networking levels

• Functionality to be extended across Apple ecosystem

Lenovo Jan. 2022–May. 2022

Software Engineer Intern

Remote

 Constructed front and backends of dynamic user feedback webpages for the Lenovo app (50,000+ downloads) using HTML/CSS, JS, Java, and SQL

HTML/CSS, JS, Java, and SQL Pfizer Jun. 2021–Aug. 2021

Robotic Software Engineer Intern

Remote

- Automated liquid pipetting for the hamilton robotic machine with python scripts and C programming
- Empowered non-technical oriented scientists to perform complex pipetting steps with machine level precision and speed
- Functionality utilized by the mass spectrometry team to aid in Pfizer's vaccine development and other operations

Projects

CROMCH | C++, Python, RISC-V assembly, Spike

Sept. 2021-Jun. 2022

• Using C++ to modify SPIKE source code to capture program state information (checkpointing), we analyze and apply a series a of optimization techniques with Python to reduce program size and runtime on a post-compile time basis

Pamelemma: Automatic Responsive Proof Grader | C++, Z3/CVC4, Google Test, Docker Jan. 20

Jan. 2021-Sept. 2021

- Collaboratively implemented new functionality to UCSB's educational "Mentor" software to **automatically** grade and give responsive feedback to students' proofs for the Automata and Formal Languages class
- Expected use of 200 students annually, as well as course staff, to facilitate faster and more responsive learning
- On average, student proof feedback calculated to be **2000% faster** compared to manual grading and feedback process, saving **20+** hrs/week for instructors as well

Technical Skills

Languages: C/C++/RobotC, Python, Swift, Java, SQL, JavaScript, P4

Developer Tools: GDB,XCode, Docker, Git, VS Code

Platforms/Frameworks: GoogleTest, Linux, IOS, React, Z3/CVC4, RiscV, AVFAudio, Apple Network [framework]

Leadership / Extracurricular

Robotics Club Sept. 2019–Present

President (2021-Current)/ Vice President (2019-2020) / Software Lead (2019-2020) University of California, Santa Barbara

- Pioneering UCSB's largest outreach program bringing robotics education to 27 classrooms across 9 schools in Goleta (2021-2022)
- Organized multidisciplinary LoRa rover project, shipping parts to students across California, during the pandemic, for hardware members to collaborate on a quarter long project via "baton passing" the rover parts through mail (2021)

CodePath Jan. 2021–Jun. 2021

 $Tech fellow\mbox{-}\ IOS\ Instructor$

Santa Barbara, California

 Co-founded CodePath at UC Santa Barbara, teaching 20+ students IOS design principles and app development with Swift and XCode