Mia Manabat

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EDUCATION

University of Notre Dame **Notre Dame, IN**
Bachelor of Science, Computer Science in Engineering | **GPA**: 3.98/4.0 ***May 2023***
Honors and Activities: Dean's List, Women in CS Treasurer, Society of Women Engineers, Filipino American Student Organization, Vietnamese Student Association, Interhall Flag Football, Interhall Soccer Captain
Relevant Coursework: Algorithms, Data Structures, Operating Systems, Compilers, Cryptography, Computer Architecture, Droid Building

SKILLS

Programming Languages: Python, C++, C, Java, Bash/sh, Javascript, HTML/CSS, ARM, TypeScript, MATLAB, Ruby, Scheme
***Software and Frameworks*:** Linux Terminal, Vim, Git, Gerrit, Angular, Verilog, Mocha, Flex, Django REST, Autodesk Maya

EXPERIENCE

Amazon Lab126 **Sunnyvale, CA**
Software Development Engineer Intern ***May 2022 - Aug 2022***
- Designed thread-safe C++ class that dynamically handles synchronous alert state changes and configured animations to implement a visualization feature of timer progression on Echo devices that affects millions of Alexa users around the world
- Devised solution from UX specifications after inspecting the FireOS codebase, thoroughly unit tested, integration tested after flashing the devices, and developed outside client to enable feature toggle-ability on-device from the cloud
- Collaborated with team members across the globe and took part in daily scrum meetings and biweekly sprints to go over Jira tickets

University of Notre Dame **Notre Dame, IN**
Undergraduate Teaching Assistant: Intro to Engineering, Logic Design, Programming Challenges ***Aug 2020 – Present***
- Enhance student learning through providing assistance during class, office hours, and labs, and independently organizing meetings with individuals and groups needing extra help
- Learn to quickly identify code issues and design assignments in Python, C++, MATLAB, and Verilog to evaluate comprehension

Undergraduate Research Assistant: SAREC - DroneResponse Project ***Jun 2021 - Dec 2021***
- Created interactive tools for displaying the overall mission state using Graphviz in Angular and NodeJS and a multithreaded simulator to carry out front-end and back-end tests utilized in a user study
- Engineered solutions to drone mission coordination with Python modules to receive, parse, and store data in REDIS and MQTT clients to publish messages to handlers to facilitate easier access and prevent loss of data
- Practice agile scrum methodology, conduct field tests, and construct programmable ROS race cars

Amazing Design People List, Startup Company **Remote**
Software Engineering Backend Intern ***Dec 2020 – Mar 2021***
- Worked with design and product team members across the globe to redesign models, develop API for the platform, and refactor code with templating for better readability using Python, Django REST framework, and PostgreSQL
- Performed weekly sprints, learned rapid application development in the fast-paced environment of a startup

PROJECTS

Semi-Autonomous Cat Droid Build and Programming ***Aug 2021 - Dec 2021***
- Assembled and wired a droid from scratch, 3D-printed parts, programmed an Arduino for autonomous drive and remote controlled settings, utilizing sonar sensors, speakers, LED lights and display, and switch boards to create a cat-themed droid

Meeting Time Optimizer - Data Structures "Preternship" Project ***Mar 2021 - May 2021***
- Worked closely with Dr. Radia Perlman to create an interactive meeting scheduler using shell and Python scripts to compile data
- Coordinated weekly meetings with a group of four peers to discuss structural code designs, practiced agile software development

HLSM Puppy Simulator Co-Processor ***Oct 2020 - Dec 2020***
- Fabricated an HLSM in Verilog able to communicate and run concurrently with another processor sharing RAM/ROM
- Designed simulator by drafting state tables, mapping out block diagrams, and devising assembly instructions

LEADERSHIP

Computer Science for Good, *Community Outreach Director, Girls Who Code Director* ***Jan 2020 – Present***
- Liaise with representatives from nonprofits and high school STEM programs to identify tech-related needs and organize well-suited student teams, and partner with the university analytics club for more business-integrated projects
- Spearhead the launch of Girls Who Code programs at local high schools by organizing mentorship programs and career workshops to facilitate pathways for girls interested in computer science

Multicultural Student Programs and Services: Building Bridges, *Computer Science Peer Mentor* ***August 2021 – Present***
- Advise and foster a supportive environment for a group of freshmen from underrepresented groups to aid in their career discernment
- Plan and direct biweekly career-building and networking events and coordinate a semester-long project to develop technical skills