

Jonathan Padungyothee

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EDUCATION

University of California: San Diego - 3.92 GPA

La Jolla, CA

Bachelor of Science in Computer Science

Jul. 2019 – Jun. 2023 (expected)

- **IDEA Scholar:** scholarship awarded to **approximately 3% of students** based on academic excellence
- **Provost Honors:** awarded to undergraduate students based on academic excellence in previous quarters
- **Coursework:** Intro to CS: Java, Advanced Data Structures: C++, Computer Organization & Systems Programming, Digital Systems & Logic Design, Intro to Computer Architecture

EXPERIENCE

UCSD Computer Science and Engineering Department

Oct. 2020 – Jun. 2021

Undergraduate Researcher - Systems and Networking

La Jolla, CA

- Discrete Network Simulation for Topology Verification
- Develop **optical network** components in **ns-3** to simulate a newly proposed dynamic network topology
- Evaluate network's performance in high-bandwidth tasks, performance in low-latency tasks, and cost-effectiveness
- Explore the consequences of **data center scalability** and its impact on the environment

UCSD Jacobs School of Engineering

Aug. 2020 – Sep. 2020

Peer Facilitator

La Jolla, CA

- Worked in a **team of 17** to supervise **375+** IDEA Engineering Student Center's Summer Prep participants
- Planned and implemented non-classroom activities including, but not limited to, virtual and remote events
- **Aided in community development** with a focus on creating an environment conducive to the academic, intellectual, multicultural, and social development of all members of the community
- Helped establish respectful and trusting relationships among students, program staff, and instructional staff

EnVision Arts and Engineering Maker Space

Aug. 2019 – Dec. 2019

Volunteer Supervisor

La Jolla, CA

- Assisted students in importing SolidWorks files into the **3D printer**, cleanly **soldering** their circuits, and preparing the **laser cutter** for rastering and vectoring on various materials
- Troubleshoot and fixed problems students may encounter with the space's tools
- Ensured the studio is a clean and safe space for visitors to work on their projects
- Volunteered for three hours a week to help **50+ students** in Intro to Electrical Engineering

PROJECTS

Eye-Watch Inc. | Python, Arduino, 3D Printer

Jul. 2019 – Aug. 2019

- Created a hands-free device to help alert the visually-impaired to close obstacles
- Used an ultrasonic sensor placed at the front of the shoe to signal the Arduino, housed in a containment anklet, to trigger vibration motors
- Demoted the project at a final presentation event attended by UCSD faculty

INVOLVEMENT

Korean American Student Association

Dec. 2019 – Present

Membership Coordinator / Academic Advisor

La Jolla, CA

- Host events weekly for general member engagement and entertainment
- Manage Big/Little Program with membership pairings and exclusive events

Division 12

Oct. 2020 – Present

Dance Team Member

La Jolla, CA

- Set build choreographed dance routines for exhibitions
- Attend dance workshops and socialize with other members

SKILLS

Languages: C++, C, Java, Python, Bash, LaTeX, HTML, MATLAB, ARMv6 Assembly, R

Developer Tools: Linux, GDB/Valgrind, Makefiles, ns-3, Git, Google Cloud Platform, VS Code, PyCharm, IntelliJ

Hardware: 3D Printer, Laser Engraver, Vacuum Former, Vinyl Printer, Soldering Iron

Interests: Choreographed Dancing, Long-Distance Running, Basketball, Video Editing, Chess, Video Games