



# Simeon Tran

COMPUTER SCIENCE GRADUATE STUDENT

Santa Cruz, CA

[simeonat.github.io](https://simeonat.github.io) | [SimeonAT](https://github.com/SimeonAT) | [simeon-tran](https://www.linkedin.com/in/simeon-tran)

## Education

### University of California, Santa Cruz

M.S. IN COMPUTER SCIENCE AND ENGINEERING

*Santa Cruz, California*

*Sept. 2023 - PRESENT*

### University of California, Santa Cruz

B.S. IN COMPUTER SCIENCE AND ENGINEERING

*Santa Cruz, California*

*July. 2019 - June. 2023*

## Master's Thesis

### OpenThread ASCON Fork for ESP32 Devices

[HTTPS://GITHUB.COM/UCSC-THREADASCON](https://github.com/UCSC-THREADASCON)

*Jan. 2024 - Present*

- Removed encryption algorithm used in OpenThread (AES) and replaced it with the ASCON encryption algorithms
- Forked and modified ESP-IDF source code to allow 802.15.4 compatible ESP32 devices to run my modified OpenThread ASCON fork

## Experience

### Tech4Good Lab

LEAD RESEARCH ASSISTANT

*Santa Cruz, California*

*Jun. 2023 - Dec. 2023*

- Oversaw the development of an Express.js and OpenAPI server that used ChatGPT to create personalized learning curriculums
- Helped team members write unit tests to help check the functionality of the backend server
- Conducted in-house research studies on explore how ChatGPT can be used to automate the creation of personalized learning pathways
- Developed the initial UI/UX flowchart for a web application used to design personalized learning experiences

### Tech4Good Lab

WEB DEVELOPER TEAM LEAD

*Santa Cruz, California*

*Apr. 2023 - Jun. 2023*

- Used Ionic and Capacitor to create infrastructure to allow all existing Angular projects to run as iOS and Android apps
- Implemented Google OAuth login on iOS and Android using the Codetrix Capacitor Plugin
- Wrote detailed documentation and onboarding instructions for new members to get them acquainted with Ionic

## Skills

<b>Embedded Systems</b>	ESP-IDF, OpenThread
<b>Back-end</b>	OpenAPI, GraphQL, PostgreSQL, Docker, Firebase
<b>Front-end</b>	React, Angular, HTML5, CSS
<b>Programming</b>	C/C++, Python, Typescript/Javascript, Haskell
<b>Soft Skills</b>	Tutoring, Mentoring