

Nathan Lam

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Education	B.S., Computer Engineering University of Hawaii at Manoa, May 2018	GPA: 3.87
Work Experience	Booz Allen Hamilton Summer Games Cyber Intern <ul style="list-style-type: none">Designed a proof-of-concept system based on blockchain technology to define trust relationships through vehicle-to-vehicle communications.Developed autonomous robotic cars using Python, LIDAR, and the ZigBee wireless protocol capable of relaying traffic information to surrounding vehicles for collective decision-making.Simulated successful high-trust communications protocol and autonomous resilience against the injection of malicious inputs by rouge actors.Placed 3rd out of 76 teams and secured \$195,000 in additional research funding. University of Hawaii at Manoa Undergraduate Teaching Assistant <ul style="list-style-type: none">Facilitated object-oriented programming course in C++ through weekly labs and assignments for 26 students. Spectrum Photonics Inc. Software Engineer Intern	May 2017 - Aug 2017 Jan 2017 - May 2017 May 2016 - Aug 2016
Project Experience	Micromouse Lead Embedded Firmware Developer <ul style="list-style-type: none">Designed and built an autonomous self-contained robotic vehicle capable of navigating through a previously unknown maze with the shortest time and path.Implemented adaptive intelligence through positional/velocity controllers and a modified Flood Fill algorithm to reliably find the optimal route to the center of a maze.Won 2nd at the IEEE Region 6 Central Area Micromouse competition. REIS Sensing and Monitoring Lead Software Developer <ul style="list-style-type: none">Designed and implemented a dashboard for a highly distributed weather sensor network to analyze solar irradiance, pressure, humidity, and temperature patterns.Maintained data collection and storage infrastructure. TextBuddy Android App Software Developer <ul style="list-style-type: none">Built application using Optical Character Recognition (OCR) technology to convert scanned text captured by a camera into a digital format. Smart Campus Energy Lab Embedded Firmware Developer <ul style="list-style-type: none">Designed and programmed a low-cost, accurate, and reliable prototype weatherbox using environmental sensor modules to forecast weather patterns. Liquid-Metal Electronics Firmware Developer <ul style="list-style-type: none">Implemented continuous electrowetting automation and precise positional control for reconfigurable electronic devices using Galinstan.Eliminated manual actuation requirement and improved RF device prototyping.	Aug 2017 - May 2018 Aug 2016 - Dec 2017 Aug 2016 - Dec 2016 Spring 2016 Spring 2016
Skills	Programming: C, C++, Python, HTML, CSS, Java, JavaScript Toolsets/Frameworks: Git, Django, Semantic UI, Jekyll, Vim, Eclipse, Cygwin, IntelliJ, Linux Tech Management: Agile, Scrum	
Activities	Webmaster , IEEE-Eta Kappa Nu (HKN) Honor Society, UH Manoa Treasurer , IEEE Student Branch, UH Manoa	Aug 2017 - May 2018 Aug 2017 - May 2018