Jonathan Carlson

(+1) 707-782-2226 | jonathanbcarlson@gmail.com | jonathanbcarlson.com | jonathanbcarlson | jonathanbcarlson

Education

University of California, Los Angeles (UCLA) *Los Angeles, California*
B.S. in Computer Science, GPA 3.6 *Sep. 2019 - June. 2023*
- Coursework: Operating Systems, Algorithms, Networking, Programming Languages, Neural Networks and Deep Learning, Computer Vision, Machine Learning, Multivariable Calculus, Linear Algebra, Discrete Structures
- Dean's Honors List in Winter 2020/21, Spring 2022

Work Experience

Tibit Communications *Petaluma, California*
Firmware Engineering Intern *June 2022 - Sep. 2022*
- Implemented IEEE 802.1X Key derivation function (KDF) to generate keys necessary for MACsec (IEEE 802.1AE) Key Exchange (MKA).
- Improved internal tools to increase engineer productivity as well as adapted internal tools to be customer facing which simplified and extended configuration of Tibit's devices.
- Created a calibration model tester in Python to compare different calibration models which were used to optimize calibration times.

HydroPoint Data Systems *Petaluma, California*
Engineering Intern *Jan. 2021 - Sep. 2021*
- Utilized machine learning in C# to help them optimize their water leak detection capabilities.
- Successfully handled my workload for both this internship and 4 summer courses at UCLA.

Projects

Insta-Chef (CS 35L Project) *Los Angeles, California*
Full Stack Developer *Feb. 2021 - Mar. 2021*
- Created a recipe-finding website that leverages ingredients you have in your kitchen using React and Firebase Realtime Database.
- Led the design of a user-specific Pantry where the user can search for recipes based on a selected ingredient.
- Styled the Login and Pantry pages to make them accessible for mobile users.

Micromouse (IEEE at UCLA Project) *Los Angeles, California*
IEEE Student Branch at UCLA *Oct. 2020 – Mar. 2021*
- Designed a PCB which detects walls using IR sensors and receivers and sends that data to an STM32 microcontroller.
- Designed a maze-solving algorithm that used flood fill to navigate any unknown maze

IDEA Hacks *Los Angeles, California*
Corporate Committee Member *June. 2020 - Jan. 2021*
- Connecting and securing sponsorships with tech companies such as Qualcomm, to fundraise for the largest hardware hackathon on the west coast, IDEA Hacks.

Skills

Programming C, C++, JavaScript, Python, Arduino, R, Bash
Technologies PyTorch, React, Firebase, Git, TensorFlow, LaTeX

Honors & Awards

Eagle Scout *Petaluma, California*
Boy Scouts of America, Troop 9 *January 2017*