Otto Jursch

ottojursch@gmail.com | 818.614.4869

EDUCATION

UC SAN DIEGO

BS in Computer Science
Minor in Mathematics
Expected June 2019 | La Jolla, CA
Cum. GPA: 3.78
Provost Honors(7/9 Quarters)

RELEVANT COURSEWORK

COMPLETED COURSEWORK

Embedded System Design Project
Neural Networks
Operating Systems
Recommender Systems and Web Mining
Building a MicroQuadcopter from Scratch

SKILLS

PROGRAMMING

Proficient
Java • Rust • Scala • C • C++ • Python
Familiar
Julia • OCaml • Haskell • Javascript

TECHNOLOGIES

Apache Spark • Docker • iOS • Android PyQt • Qt • PyTorch • Travis CI • Digital Ocean • AWS Lambda • AWS AppSync GraphQL • Unix • git • Mypy • AWS Batch • Apple Research Kit • LibSVM

TECHNIQUES

Test Driven Development
Agile Development
Continuous Integration
Design Patterns
Functional Programming
Geographic Information Systems

TECHNICAL EXPERIENCE

AMAZON.COM | Software Developer Engineer Intern

June 2018 – Sep 2018 | Seattle, WA

- Worked in the AWS Supply Chain Management division, responsible for the management of AWS's datacenters,
- Utilized serverless technologies like AWS Lambda to develop scalable solutions.
- Integrated features with our user interface using GraphQL and AWS AppSync.
- Used React-Redux to add features to the user interface that will be used to create price quotes for all server racks purchased by AWS.

VERIZON WIRELESS | Software Engineering Intern

June 2017 – Aug 2017 | San Jose, CA

- Worked on software to detect the end credits of a television show or movie for IPTV, an internet based television product.
- Utilized OCR software and basic image processing techniques to extract features from frames of television shows.
- Developed infrastructure to automate parameter search for support vector machines using Apache Spark.
- Trained a model that classified individual content frames as either a part of the credits or not a part of the credits using support vector machines.
- Combined classifier with heuristics to develop algorithms to determine when the end credits of a TV Show or Movie start.

UCSD TUAS | Software Team Lead

October 2015 – June 2019 | La Jolla, CA

- UCSD TUAS is a student organization at UCSD that builds an autonomous airplane for the yearly AUVSI-SUAS competition.
- Lead development of a real time path planning system for our drone platform. Focused on avoidance of both moving and dynamic obstacles using algorithms such as Rapidly Expanding Random Trees and Dubin's curves
- Lead experimentation in moving obstacle prediction to facilitate better obstacle avoidance results
- Organized software development practices of a small team. Utilized Travis CI and docker for continuous integration testing of our systems. Reviewed code submitted by other members to ensure code quality.

AERIAL LIDAR | Student Developer

January 2018 – Present | La Jolla, CA

- In my Embedded System Design Project class, I developed a path planning algorithm for a drone that will use LiDAR technology to search for Mayan ruins in the Guatemalan Rainforest.
- Created an extensible platform to evaluate different path planning algorithms using PyQt5 and Matplotlib.
- Developed a working algorithm and performed a successful test flight in San Diego.

UCSD CSE DEPARTMENT | CSE 110 Tutor

January 2018 – March 2018, January 2019-March 2019 | La Jolla, CA

- Tutored for Professor Griswold's CSE 110 Software Engineering Class in both Winter 2018 and Winter 2019 quarters. CSE 110 which teaches students software design patterns and other software engineering practices.
- Assisted students as they developed Android projects and with smaller labs designed to teach Android Programming.
- Helped teach students design patterns and other software engineering concepts in lectures and discussion sections.