

EDUCATION

University of Washington (GPA: 3.77)

Seattle, WA

Directly admitted as Computer Science major, Class of 2022

SKILLS

Languages: Java, Python, C++, JavaScript, HTML, CSS

Platforms/Tools: Docker, Spark, NumPy, Pandas, React, Android, OpenCV, Django, jQuery

EXPERIENCE

SDE Intern | Amazon Lab126

Jun 2020 - Sep 2020

Optimized data preparation script for feature extraction

- Utilized **spark** to improve speed by more than 10% when dealing with 500,000+ files to process
- Standardized data prep process by combining the functionality of 2 separate scripts

Software Developer | DotMote Labs

Jun 2019 - Present

Implementing scalable workflows for climate change research

- Spearheaded end-to-end workflow which determines the flowering of a specified region by analyzing satellite imagery data through **image processing** with **NumPy and Pandas**
- 1 of 3 engineers working on <https://sweep.run>, the UI for SWEEP - a scalable workflow tool
- Created a dynamic graph visualization tool to monitor workflows with **sigma.js** libraries
- **Publication:** John, A.; **Ong, J.**; Theobald, E.J.; Olden, J.D.; Tan, A.; HilleRisLambers, J. Detecting Montane Flowering Phenology with CubeSat Imagery. *Remote Sens.* 2020, 12, 2894.

Connected and Autonomous Vehicles Team | UW EcoCAR

Jul 2019 - Feb 2020

Working to design and build a level 2 autonomous vehicle

- Designed a basic feature extraction algorithm for lane detection in **OpenCV**
- Implemented a python script to run on a Raspi to capture stereo images for depth map

Computer Programming II Teaching Assistant | UW

Sep 2019 - Mar 2020

Lead bi-weekly section teaching basic data structures and programming concepts

Grace Children's Foundation Volunteer | Impact++

Jan 2019 - Jun 2019

Web app that connects children in need of medical aid with doctors willing to provide pro bono services

- Developed extensively in **React** on the search results by organizing output, adding functionality to mark favorite organizations, and linking organizations/people to their respective resource page

PROJECTS

Registration Bot

Sep 2019

Python script that registers for a class once there is an opening for a given SLN number

- Utilized **Selenium WebDriver** to dynamically scrape registration page and update courses

My Fridge | Google Computer Science Summer Institute

Jul 2018

Web app that manages fridge inventory and finds recipes based on fridge items and user queries

- Auto-generated recipes based on fridge foods and implemented a feature to search for recipes
- Rendered templates using **Jinja** and used **Google App Engine** for cloud hosting and data storage