Justin Ong

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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
- Co-authored research paper: Detecting Montane Flowering Phenology with CubeSat Imagery https://www.mdpi.com/2072-4292/12/18/2894

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 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
- Awarded $3000 towards the project's cause at Microsoft Hack for good

PROJECTS

Spam/Ham Email Filter Nov 2019
Naive Bayes classifier which classifies emails as either spam (bad) or ham (good)

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