

EDUCATION

University of Washington (GPA: 3.82)

Seattle, WA

Directly admitted as Computer Science major, Class of 2022

SKILLS

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

Tools: PyTorch, OpenAI, Docker, Spark, React.js, Django, Selenium WebDriver

EXPERIENCE

Research Assistant | Neural Systems Lab

Jan 2021 - Present

Researching neural co-processors - a framework that leverages AI in closed-loop BCIs

- Demonstrated efficacy in a reinforcement learning paradigm by successfully improving the performance of a damaged agent by incorporating the components of a neural co-processor

Software Engineer | DotMote Labs

Jun 2019 - Mar 2021

Implemented scalable workflows for climate change research

- Spearheaded end-to-end workflow that determines the flowering of a specified region by analyzing satellite imagery data; lead to a publication
- Created a dynamic graph visualization tool to monitor and create workflows
- Implemented an ML workflow for object detection of flowers using YOLO

SDE Intern | Amazon Lab126

Jun 2020 - Sep 2020

Designed and implemented ETL pipeline for speech data

- Increased the CPU utilization of spark clusters in order to speed up the loading time of speech data

Computer Programming II Teaching Assistant | UW

Sep 2019 - Mar 2020

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

PUBLICATIONS

1. 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. <https://doi.org/10.3390/rs12182894>

PROJECTS

Reimplementation of World Models paper

Dec 2020

Reimplementation of vision model, memory RNN, and controller to replicate results in the paper

- Achieved a sufficient reward to navigate the OpenAI car-racing environment (worked with a partner)

Crescendo | Dubhacks

Music discovery platform that promotes upcoming artists

Oct 2020

- Implemented the backend framework and generated song snippets for music categories

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