ZANE ALUMBAUGH

SOFTWARE DEVELOPER SAN FRANCISCO BAY AREA (510)599-6558

DETAILS

San Francisco Bay Area
(510)599-6558
zanedma@gmail.com

LINKS

Portfolio Website

Linkedin

Github

SKILLS

Python

C/C++

Golang

HTML/CSS

Django

Java

JavaScript

Scala

Prolog

Haskell

Unix

Git

Docker

PROFILE

Enthusiastic and dedicated 4th year computer science student at UC Santa Cruz looking for a job where I can grow and further my career with the help from experienced team members.

EMPLOYMENT HISTORY

Student Research Assistant/Python Programmer at University of Washington, Remote
June 2020 — Present

- Implemented action policies for Reinforcement Learning Linear Quadratic Systems, and extend their application to a multiplayer environment
- Update gradient-based policy gradient algorithm to multiplayer environment using OpenAI's Vanilla Policy Gradient and PyTorch

Student Research Assistant/Python Programmer at University of Washington, Seattle
July 2019 — September 2020

- Implemented gradient-based learning algorithms for training Generative Adversarial Networks (GANs) using the PyTorch framework; the algorithms are based on a novel hierarchical game theoretic formulation that leads to implicitly defined learning dynamics using second order information on the discriminator loss function
- Implemented an optimizer class for PyTorch that used second-order derivatives to predict future optimizations and allowed for the learning agent to act on these predictions
- Built the foundations for a novel approach to accelerate the GAN learning process by leveraging the eigenstructure of the Jacobian of the learning dynamics

Website Developer at Bay Area Geophysical Society (BAGs), Remote
February 2019 — March 2019

- Created current website from scratch - Employer requested a simple static implementation. Used HTML, CSS, and minimal JavaScript

EDUCATION

Computer Science, University of California, Santa Cruz, Santa Cruz
September 2017 — Present

Achievements

UCSC Dean's Honors List - Spring 2020, Winter 2020, Winter 2018

Coursework

Introduction to Programming: Java, Intermediate Programming: Java, Intro to Data Structures, Computer Systems and Assembly Language, Algorithms and Abstract Data Types, Comparative Programming Languages, Advanced Programming, Machine Learning, Principles of Computer Systems Design, Distributed Systems (Fall 2020), Computational Models (Fall 2020), Analysis of Algorithms (Tentatively Winter 2021), Technical Writing (Tentatively Winter 2021)

REFERENCES

Lily Ratliff from University of Washington
ratliffl@uw.edu · 206-543-6244

Michael Wilt from Bay Area Geophysical Society
MWilt@lbl.gov