LAURENCE PALMER

Email: laurencepalmer@berkeley.edu, Github: github.com/laurencepalmer

EDUCATION

University of California, Berkeley

Master's of Engineering, Industrial Engineering and Operations Research

Aug. 2022 - May 2023

GPA: 3.93

University of California, Santa Barbara

Sep. 2017 - Jun. 2021

Bachelor's of Science, Applied Mathematics; Bachelor's of Arts, Economics

GPA: 3.85

Awards: High Honors, Letters and Sciences Honors Program, Academic Excellence Award, Gretler Fellow

EXPERIENCE

Software Engineering Intern Veryfi, Platform Group

Feb. 2022 - Aug. 2022

Released Tensorflow models into production, contributed to regex database for training validation

- Built web scrapers to collect training data using selenium
- Created an algorithm to read and parse magnetic ink characters on checks into basic components Developed new microservices ad hoc, e.g. automatic personally identifiable information redaction from pdfs
- Built microservice sandbox for stress testing

Co-Founder, Chief Financial Officer

Jun. 2019 - Dec. 2020

Alt. Labs, Inc. (Generous Lending)

- Pitched to Venture Capital firms such as Plug and Play and 1517 Fund
- Created marketing materials, pitch deck, and financial and user adoption projections
- Collaborated with Fenwick and West to create Terms of Service and discuss compliance strategies

Finance Analyst Intern

Jun. 2020 - Aug. 2020

- Intuitive, Data and Digital Group
- Analyzed and created adoption curve library for imaging/vision instruments on Da Vinci Systems
- Performed product cost analysis for existing data and digital products such as MyIntuitive
- Created and maintained Tableau dashboards to monitor demand and marketing metrics
- Used Monte Carlo simulations to model product adoption and real options analysis

Research and Development Intern

Jun. 2019 - Aug. 2019

Abbott Diagnostics, Reagent Group

- Performed QC tests on Alinity HQ & Emerald 22 instruments by aliquoting and testing blood samples, and summarizing results
- Analyzed sample data compiled from internal and global Alinity HQ database for use in clinical reporting to regulatory agencies using Python and Minitab

SELECTED PROJECTS

Predicting Capital Demands Using Neural Networks

- Implemented a multilayer perceptron (MLP) and LSTM recurrent neural network to predict future capital demands from private equity/venture capital general partners using historical data from Public Employee Retirement System of Idaho
- Achieved an mean squared error of 0.05% (MLP) and 0.02% (LSTM) relative to capital call magnitude on validation set

- Created a web and iOS application for planning carpool rides
- Used Django to build web app and APIs along with a pub/sub architecture leveraging Kafka, MongoDB, and OpenStreetMaps for route tracking
- Built personal cloud utilizing only spare laptops, 8-port switch, and ethernet cables

Tree-based Model for Anemia Prediction (Abbott Diagnostics)

- Created a CART decision tree model to predict the presence of microcytic, microcytic, and sickle cell anemia based on CBC data for diagnosis at point of care
- Accuracy of ~95% on validation set

LEADERSHIP, SERVICE & VOLUNTEERING

Oct. 2020 - Jun. 2021 **Cub Support**

Tutored mathematics and reading comprehension to assist low-income students with remote learning during COVID

Greeks 4 Kids Apr 2018 - Jun. 2021

Organized fundraisers for school supplies and toy drops to local organizations (StoryTellers Children's Center, Boys and Girls Club of Santa Barbara) with annual donations over \$10,000

SKILLS

Languages: Python, Matlab, SQL, Swift, LaTex, HTML/CSS

Libraries/Frameworks: PyTorch, Matplotlib, Seaborn, Pandas, Scipy, Numpy, Selenium, Django, Flask, Kafka, pytest, Jekyll,

Docker, Terraform, Kubernetes, Git

Tools: Linux, Tableau, Minitab, Excel, Google Suite, GitLab, Jira

Cloud: AWS, Linode

Databases: PostGres, MySQL, MongoDB