AA

ALP ALTUG

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Summary

Motivated recent graduate with a solid academic foundation and hands-on project experience, specializing in innovative solutions and collaborative teamwork. Demonstrates strong technical expertise and thrives in dynamic environments that promote personal and professional growth. Deeply-committed to contributing meaningfully to a forward-thinking organization while continuing to develop skills alongside the company. Insightful professional in the scientific research with experience in both private and analysis sector and academia, known for high productivity and efficiency in task completion. Possess specialized skills in data interpretation, laboratory management, and statistical analysis; leading to building specialized models for each task. Motivated by producing meaningful systems into production that touch people's lives and/or accelerate scientific research.

Skills

- Adept at software development, testing and deployment (Full CICD pipeline)
- Fluent in C, C++, C#, Python, Java, JavaScript
- Experienced in the full model creation pipeline, from architecture to training
- Experience in big data technologies and cloud computing
- Statistical modeling and analysis
- Strong statistical background
- Experience using neural networks and neural network libraries like PyTorch, huggingface

Experience

11Sight | San Francisco, CA
Software Engineer AI Lead
05/2024 - Current

- Lead in the development and improvement/debugging aspects of an AI agent designed to help customers make appointments. Got important experience web-development using frameworks like Rails, Redis, Postgres. Coordinated simultaneously with the QA team to offer new features tailored for each client. Worked on improving the accuracy of capture by using methods such as fine-tuning and 'top-level freeze.'
- Help build a platform for deploying production-level ML models using Google Cloud computing technologies more efficiently to handle the influx of incoming customers; this led to our deployment and testing pipeline to cut to 1/20th the time.
- Set up a telephony line using a third-party company, where we could relay customer conversations to ship the product. Handled all of the telecommunications aspects of our agent single-handedly.
- Conducted testing of software and systems to ensure quality and reliability.
- Built interactive dashboards for displaying results of AI projects to help our QA, suiting theor specific needs.

Shuffl Mobility | Berkeley, CA
Chief Technology Officer (Co-Founder)
07/2024 - Current

- Developed a mobile application for iOS and Android for ride-hailing from scratch.
- Utilized widely-used tools such as Supabase, Flutter in a conventional client-server architecture.
- Added the backend functionality for finding rides and matching

like-minded people according to their user model. Created a backend server in lambda-function framework to accelerate the client-side. Trained a model on existing virtual user profiles, web scraping for optimal matching and increase user satisfaction.

- Created data collection techniques from the user as they use our app and as they sync their social media platforms using deployable ML pipelines.

Wheeler Water Institute (University Lab) | Berkeley, CA
Quantitative Researcher
08/2023 - Current

- Evaluated existing policies and practices related to research initiatives using generative AI.
- I learned how to train models to restrict them to giving binary yes/no answers without losing accuracy in a domain-optimized way, using transfer learning.
- I developed my own Retrieval-Augmented Generation model before they became widespread. My technical results and findings that support our qualitative claims cut down the time-infeasible tasks for our qualitative researchers.
- Created graphs and charts detailing data analysis results which were printed in our paper for visual aid.

Lawrence Livermore Labs | Berkeley, CA
Machine Learning Researcher
01/2022 - 12/2023

- Worked on developing a GAN architecture to predict new trends in the field of particle physics.
- I took part in the whole process of the development of the model, from training the layers using step-based training to careful debugging in between.
- Worked with a team consisting of 20+ qualified ML researchers under Benjamin Nachman.
- Utilized, Toolkit for Multivariate Analysis (TMVA), a multi-purpose machine learning toolkit integrated into the ROOT scientific software framework, to support our scientific research.
- Our findings set-up a new benchmark accuracy of 88%, allowing researchers to gain valuable insights of the output of our final model which we presented accross Lawrence Livermore National Labs.

Prime Trading LLC | Chicago, IL
Quantitative Research Analyst Intern
05/2023 - 08/2023

- Developed predictive models for hedging techniques in options and futures trading.
- Developed high-complexity and depth ML and diffusion models for high-frequency trading, and also worked on the post-trading analysis side of the process.
- Identified trends in large data sets on CBOE trades on popular indexes using probability-based models that are descendants of the Hidden Markov Model to better highlight and understand the trends.
- Created dashboards for visualizing quantitative research results for our trading team to get insight.

Bell Labs | Murray, NJ
Software Systems Research Intern
06/2022 - 08/2022

- My group, lead by Thomas Woo, specialized in researching Web3 and how to build production-level tools leveraging blockchain technology.
- I built a fully automated and secure auction platform that is running purely on blockchain. I had experience with building on the Ethereum chain in the process, setting up the smart contracts, and further implementing the payment gateway for the same service.
- Utilized Front-end libraries including Ethers.js, and developed the backend using the Solidity framework.
- I presented experimental findings in presentations with graphs, charts, and other visual aids to the Bell Labs community at the end of my internship.

Education and Training

University of California, Berkeley | Berkeley, CA
Bachelor of Science in Electrical Engineering And Computer Science
05/2024

- EECS Honors Recipient (*Selected to be a member of the EECS Honors Class of 2024, an honor given to the most accomplished 20-40 students each year in UC Berkeley majoring in EE/CS*)
- EECS Regents Award Recipient
- *Past Coursework: Data Structures, Human Contexts and Ethics of Data, Discrete Math and Probability, Multivariable Calculus, Cloud Computing and Software as a Service, Algorithmic Thinking, Efficient Algorithms and Intractable Programs, Introduction to Artificial Intelligence, Probability and Random Processes, Machine Learning, Optimization Models in Engineering, Computer Security, Operating Systems and Systems Programming, Introduction to Time Series, Deep Neural Networks, Econometrics, Introduction to Database Systems*