VIDITH BALASA

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EDUCATION

Master of Science in Data Science, University of San Francisco — Expected 2024
Relevant Coursework: Machine Learning, Deep Learning, Natural Language Processing, Time Series

Bachelor of Arts in Philosophy, University of California, Santa Cruz — 2018 - 2022

EXPERIENCE

Square — Oct 2023 - Present
Machine Learning Engineer – Intern — *Remote*

- Enhanced revenue-to-ad-cost ratio by over 5% through the development and training of a sophisticated gradient boosting model on a dataset exceeding 100GB, aimed at predicting customer lifetime value with heightened accuracy
- Achieved a 30% speed enhancement in existing codebase by integrating advanced orchestration frameworks for the streamlined deployment of machine learning models into production environments
- Obtained shareholder approval for production deployment by concisely presenting the model's monetary benefits

Siemens — May 2023 - Jul 2023
NLP Engineer – Intern — *Remote*

- Deployed a cutting-edge LLM troubleshoot solution, achieving a 15% reduction in customer complaints by enhancing the accuracy and response speed of our support systems
- Conducted comprehensive research on emerging deep learning and generative AI technologies, contributing to the ongoing integration of cutting edge technologies into the company's product offerings
- Effectively communicated complex project milestones and results to a broad range of C-level executives, ensuring alignment and fostering an environment of transparency and collaboration

Divercity — Jun 2022 - Sep 2022
Machine Learning Engineer – Intern — *Remote*

- Ensured operational integrity of image recognition models deployed on AWS, maintaining uptime at a rate of less than 3% downtime month-over-month
- Spearheaded the recruitment and mentoring of two interns from a pool of over five candidates, playing a crucial role in their development and successful integration into key projects

PERSONAL ENDEAVORS

ScaleAI Hackathon Winner One of three top prize winners at the annual Scale AI hackathon. Built an LLM based molecular generation model that increases speed of drug discovery for chemical engineers. Fine tuned embedding models on SMILES notation to generate molecular substructure knowledge from plain text.

4 Bit CUDA Kernel Built a set of CUDA kernels that allows for quantized 4 bit tensor operations on an Nvidia GPU. Nvidia doesn't currently have any native kernels that allow for 4 bit computation, so I decided to build my own. (GitHub)

Fog City Rocketry Officer for fog city rocketry club. Built a 3D printed rocket with a custom H-class solid fuel engine that reached 10,000 feet. Worked on IMU and flight computer algorithms.

SKILLS

Languages	Python, C++, SQL, Javascript, Typescript, HTML, CSS
Frameworks	PyTorch, CUDA, TensorFlow, Scikit-learn, Pandas, Numpy, Flask, React
Databases	MySQL, PostgreSQL, MongoDB, Redis, Firebase
Misc	git, vim, nvcc, Docker, AWS