

Bisman Sodhi

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SKILLS

Languages C++, C, Python, TypeScript, JavaScript, React, HTML, CSS, SQL

Software AWS, GCP, Docker, TensorFlow, JupyterNotebook, Git, Bash, Unix, Linux, Vercel, Airflow, Snowflake, Kafka, Node.JS, Elasticsearch, Github, GitLab, Agile, Postgres, NoSQL, PyTorch, GDB, Valgrind, Vim, Text Generation LLM, Text-to-image LLM

EXPERIENCE

Founding Software Engineer

HD3 (Stealth Startup)

Oct 2024 - Nov 2024

Remote

- Implemented a Python pipeline for inter-robot communication, utilizing Kafka to store and distribute commands
- Enabled robots connected to the kafka server to execute and coordinate actions in real-time
- Took initiative on doing market research, making business models and creating pitch videos for Venture Capitalists firm

Software Engineer

Ocado Technology

May 2024 - Oct 2024

Las Vegas, NV

- Reduced deployment time by creating a CI/CD pipeline in Gitlab that improved automation for the six-axis robotic arm
- Increased test coverage by 7% by creating unit tests & hardware-in-the-loop testing and refactoring API calls in C, C++
- Implemented a dynamic configuration system, reducing development time by 30% and improving hardware scalability
- Mentored team members by leading a GDB workshop, enhancing their debugging skills and proficiency

Software Engineer Intern

Strava

June 2022 - Aug 2022

San Francisco, CA

- Designed & implemented an automated pipeline to extract data from S3 and load it in Snowflake for analysis
- Implemented a batch data loading system to handle upwards of 10 million events daily
- Created an alerting system for abnormally high data volumes, improving reliability and ensuring data integrity
- Collaborated with engineers and analysts across teams to fulfill the project requirements

AI & Software Engineer Resident

Headstarter

Dec 2024 - Present

Remote

- Built machine learning, ai-engineering and full-stack projects in fast-paced software team environments
- Developed an AI app with Next.js, Vercel and stable diffusion LLM to create images based on text prompt
- Implemented an AI chatbot using Next.js on the frontend and Groq for Fast AI inference for academic research
- Coached by Google Machine Learning, Google Kubernetes, Two Sigma, Tesla, Figma and Citadel Engineers

Software Engineering Intern

California Nanosystem Institute

Aug 2018 - Sept 2018

Santa Barbara, CA

- Implemented DFS and BFS algorithms in Python to analyze propagation of epidemic graphs
- Optimized the code through efficient data structures, leading to conclusive analysis

PROJECTS

TriEval: LLM Evaluator - [TriEval Website](#) | [GitHub Link](#) | [Substack Article](#)

- Implemented AI chatbots using the Llama model, Gemma model and Mistral model through Groq API
- Created an evaluator with the Gemini LLM to grade the responses and added metrics like accuracy and helpfulness
- Built the frontend using TypeScript, backend using PostgreSQL Database on Neon server, and deployed using Vercel

Academic ChatBot - [GitHub Link](#)

- Used Groq for Fast AI Inference to create a chatbot that answers questions about the link provided
- Used Next.js & TypeScript for a clean and user-friendly frontend interface.

Market Crash + Investment Strategy App - [GitHub Link](#)

- Trained a financial data to detect anomalies in market using feature engineering technique, machine learning function
- Created an investment algorithm based on prediction, integrated an AI chatbot to answer financial questions

Leadership

Computer Science Tutor - Taught python programing to elementary and middle school kids

2022 - 2023

President, Women in CyberSecurity Club - Hosted Linux workshops and taught cybersecurity skills to students on campus

2021 - 2022

Webmaster, Women in CyberSecurity Club - Created the club website using JavaScript, HTML and CSS

2020 - 2021

SB Hackathon, 1st runner up - Made an app using SQLite and Django (Python framework) where students could connect with mentors.

2019

EDUCATION

University of California, Santa Barbara

Graduation: 2023

Bachelors of Science in Computer Science