

Hardik Singh

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EDUCATION

University of Texas at Austin

Bachelor of Science in Computer Science, Minor in Business

Austin, TX

Aug. 2023 – May 2026

EXPERIENCE

Software Engineering Intern

John Deere Financial

May 2024 – Present

Des Moines, IA

- Collaborate with accountants to implement business features in payment and booking systems using AWS Lambda and ECS.
- Developed a REST API using Python, FastAPI, and GraphQL to query New Relic and display log info as dashboards, implemented using Terraform (IaaS).
- Enhancing monitoring and debugging processes by implementing structured logging using Java Spring and Maven.

Software Engineering Intern

Crestron Electronics

May 2022 – August 2022

Plano, TX

- Created an automation framework using Python and Unittest to improve Crestron Device testing speeds by 330%.
- Engineered an object detection framework using Tensorflow to detect different states of audiovisual devices.
- Presented automation product proposals to the Chief Operating Officer and the Sr. VP of Engineering of the company.

Software Development Intern

Infiniwell AI

May 2021 – August 2022

Remote - Trondheim, Norway

- Developed the brand-new patient-facing app called Sentio via Swift with messaging and live vital tracking using Apache Kafka.
- Connected the old hospital-facing app and new-patient facing app to the Microsoft Azure backend.
- Debugged and fixed errors within the old Sentioweb platform and the former Azure systems.

PROJECTS

OptiPrice | *Python, FastAPI, React, Scikit, Docker, Scipy*

May 2024 – Present

- Implemented a pricing model for both European and American Options using FastAPI
- Utilized Black-Scholes Equation, a Monte Carlo approach, and the Binomial Option pricing model.
- Engineered a proprietary machine learning model to optimize the approach used to select derivatives.

Connect | *React Native, Firebase, Expo, HTML, CSS, Javascript*

December 2023 – April 2024

- Architected a business editing system enabling businesses to showcase vital information and real-time updates seamlessly.
- Implemented advanced search filters for tailored business searches with a verification-based review system.

VirtuChat | *Python, TypeScript, DynamoDB, Lambdas, S3, OpenAI, Flask, Deepface*

March 2024 – May 2024

- Designed a virtual therapist using GPT 4 to simulate real-time, interactive therapy sessions
- Used a multimodal approach, tracking emotions with facial recognition data paired with a comprehensive patient tracking system.

CargoStore | *React, HTML, CSS, Javascript, Python, Tensorflow, Flask, Plotly*

October 2023 – December 2024

- Created a full-stack matching frontend for seamless trucker-customer connections, boosting logistics efficiency.
- Innovated an object detection system for measuring and mapping of boxes into a 3D space-optimized visualization
- Added an online web store to organize and purchase cargo space, with algorithms to pair potential partners

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQL, Kotlin, JavaScript, TypeScript, R, HTML/CSS

Frameworks: Spring, React, Node.js, React-Native, Flask, FastAPI, Terraform, Django, Tailwind, Express

Developer Tools: AWS, Azure, Apache, Docker, Kubernetes, PyCharm, IntelliJ, Git, Jira, VS Code, Expo

Libraries: OpenCV, TensorFlow, Pandas, NumPy, Matplotlib, SciPy, PyTorch, Keras, Plotly