Shrisha Yapalparvi

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Education

University of Virginia, Charlottesville, VA   B. S. Computer Engineering – May 2024
Coursework: Data Structures / Algorithms, Autonomous Vehicles, AI Cyber Security   **GPA: 3.94**

Skills

Languages Python, SQL, JavaScript, TypeScript, Java, Go, C, C++, CSS, HTML
Libraries: ROS, React, NextJS, TailwindCSS, NodeJS, Django, Flask, Git, SQLite, PostgreSQL
Tools / Cloud: Google Cloud, Serverless Functions, Firebase, Vercel, Cloud Run

Work Experience

Lead Full Stack Developer, **Hinkapin Health**   November 2023 - August 2024
- Designed, developed, and deployed full stack web app for a startup hospital system to find and book procedures with an e-commerce style UI designed in React, NextJS, and TailwindCSS
- Deployed RESTful APIs and microservice based backend on serverless functions in Python and NodeJS
- Reduced average time to contact by 34% and increased average contact rate by 21%
- Architected cloud databases utilizing PostgreSQL for medical data and Cloud Storage for images

AV Safety Undergraduate Researcher, **UVA,** Charlottesville, VA   September 2023 - December 2023
- Implemented an LSTM in PyTorch and analyzed outputs to find markers that indicated when AV motion planning systems were under attack, and presented processed images that removed attack vectors

Full Stack Software Engineering Intern, **Yext,** Rosslyn, VA   May 2023 - July 2023
- Designed and implemented a live monitoring dashboard page to condense space while increasing relevant metrics by 35%. Set up backend in Java and Go, and built frontend with React for live alerts and statistics
- Established Lexical Rich Text and Markdown support with unit testing within Yext Pages
- Expanded CLI to auto-authenticate, speeding up startup and decreasing login errors by 38%
- Constructed SQL table with a Go backend to log and backfill usage data to reduce server strain by 13%

Undergraduate Researcher, **UVA,** Charlottesville, VA   June 2022 - May 2023
- Spearheaded a data collection application to collect and record kinematic and video data for autonomous surgical research – cutting down setup time by 81% and reducing need for specialized training
- Designed frontend in React and backend in Python and C++ to connect data across 5+ pipelines
- Optimized data post-processing in Python / OpenCV and sped up processing time by 43%

Activities

Robotics Engineer, **UVA F 1/10**   August 2023 - December 2023
- Implemented autonomous driving methods including follow the gap, SLAM, and pure pursuit on a 1/10th scale car equipped with LIDAR, Radar, and camera inputs using ROS with speeds of up to 30 MPH
- Created visualization tooling with RViz and a live monitoring dashboard with React

Co-Founder, **Project Code**   January 2022 - December 2023
- Co-Founded and grew a club of 50+ members at UVA to work on semester-long tech projects
- Taught club members new languages such as Python and JS, as well as tools such as git to build projects such as a stock market analysis bot, a music translation algorithm, and Stratego
- Led a team of engineers to design a U-net CNN model in PyTorch to segments chest X-ray images for abnormalities, including teaching ML fundamentals, creating assignments, and overseeing progress

Projects

Budget Buddy - Finance Category Winner HooHacks Hackathon
- Developed a proactive personal budgeting web app with a Flask backend and React frontend allowing users to view aggregated personal finances and see impact of purchases in real time with plaid API.
- Stored user data in Firestore database and queried data to a Twillio powered text bot operating via Open AI's LLM API, allowing users to determine if financial decisions aligned with their goals in real time

Split The Bill
- Created Gemini Vision based app to make splitting receipts between friends easier and up to 80% faster.
- Developed a user-friendly and responsive front-end leveraging React, TailwindCSS, and NextJS for the frontend, and Flask running on Google Cloud Run for the backend.