

# Shrisha Yapalparvi

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## Education

**University of Virginia**, Charlottesville, VA

B. S. Computer Engineering, August 2021 - May 2024

GPA: 3.92

Coursework: Computer Systems, Data Structures and Algorithms, Autonomous Vehicles, AI Cyber Security

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## Work Experience

**AV Safety Undergraduate Researcher, University of Virginia**, Charlottesville, VA, September 2023 - Present

- Implemented an LSTM in PyTorch and analyzed outputs to find markers that indicated when AV motion planning systems were under attack
- Analyzed effect of different image attack defenses to make image filtering recommendations

**Full Stack Software Engineering Intern, Yext**, Rosslyn, VA, May 2023 - July 2023

- Redesigned and implemented deployment status page to condense space by 40% while increasing relevant data / metrics by 35%. Set up backend Java and Go, made AJAX requests, and built frontend with React
- Established Lexical Rich Text and Markdown support with unit testing to expand customization of web pages and deployed to millions of end users
- Expanded CLI to auto-authenticate, speeding up startup and decreasing login errors by 38%
- Constructed Snowflake SQL table with a Go backend to log and backfill data regarding usage rates. Analyzed usage data to flag users with high compute resources and cut server strain

**Undergraduate Researcher, University of Virginia**, Charlottesville, VA, June 2022 - May 2023

- Spearheaded a data collection platform to collect and record kinematic and video data across 5+ pipelines for autonomous surgical research-cutting down data collection setup time by 67%
  - Optimized data post-processing in Python / OpenCV and sped up processing time by 43%
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## Activities

**Co-Founder, Project Code**, January 2022 - Present

- 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 JavaScript, 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 segment chest X-ray images for abnormalities, including teaching ML fundamentals, creating assignments, and overseeing progress

**Software Engineer, UVA F 1/10**, August 2023 - Present

- Implemented autonomous driving methods including wall following, follow the gap, and SLAM on a 1/10th scale car
  - Utilized ROS and ROSpy to collect lidar data and run the car through the course at speeds of up to 25 MPH
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## 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
- Stored user data in SQLite database and queried data to send to an Open AI LLM model trained on users' financial data to determine if financial decisions align with users' goals in real time

**Split The Bill**

- Trained an OCR using Keras and TensorFlow to be able to read and parse through user-uploaded images of receipts to identify individual items and costs so users can split bills between friends
  - Developed a user-friendly and responsive front-end leveraging HTML, CSS, JS, and Flask
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## Skills

Languages: Python, HTML, CSS, JavaScript, TypeScript, Java, Go, C, C++, SQL

Tools / Libraries: ROS, ReactJS, NextJS, Django, Flask, Git, Pytorch, ROS, ROSpy, SQLite

Hobbies: Basketball, Football, Cooking, Music