SHAWN THOMAS

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EDUCATION

University of Virginia | B.S. Computer Science | CS GPA: 3.95/4.00 — Charlottesville, VA
Relevant Coursework: Software Development, Data Structures and Algorithms, Computer Systems and Org. — August 2022 - May 2026

RELEVANT PROJECTS

Fitness Trainer Web Application | [Link](#) — Charlottesville, VA
Software Developer | Live Object detection, TensorFlow, Flask API — July 2024

- Implemented live object detection of exercises through a webcam using TensorFlow, displaying real-time predictions as well as keypoints on the user's body for visual feedback.
- Scraped, combined and reformatted video data from various sources and preprocessed it for training.
- Trained an LSTM model to recognize exercise patterns across video sequences of frames which were preprocessed into keypoints utilizing the MoveNet model.
- Developed a Flask API to handle the backend processing, including receiving frames via JavaScript, running predictions and return JSON data.
- Planned and designed a feature to automatically correct exercise form and provide real-time guidance to imitate a Fitness Trainer.

Stock Prediction Web Application | [Link](#) — Charlottesville, VA
Software Developer | Graphical Analysis, Plotly, Streamlit, API — November 2023

- Engineered a Stock Prediction Web App using Python and Streamlit, featuring an intuitive user interface that allows users to select any S&P 500 stock and predict its future prices with Facebook's Prophet model.
- Implemented dynamic data extraction from Yahoo Finance, ensuring real-time access to historical stock data, and utilized BeautifulSoup for automated scraping of stock tickers from Wikipedia, maintaining an up-to-date selection for analysis.
- Enhanced user engagement with interactive visualizations using Plotly, displaying both historical and forecasted stock data, facilitating informed investment decisions through intuitive and detailed graphical analyses.

TaskTune Reminders Application — Charlottesville, VA
Software Developer | Java, XML, Android Studio, CRUD — October 2023

- Developed a Task Management and Reminders Android app in Android Studio with Java, XML, and Android-specific functions.
- Designed the functionality to incorporate CRUD operations by leveraging Data Structures and Android functions
- Incorporated an alarm feature which rings at the given entered deadline using android's provided calendar and time features.

Powr, Web Project (HooHacks Hackathon) | [Link](#) — Charlottesville. VA
Backend Developer | Python, Data Processing, GitHub, — March 2023

- Collaborated within a team of 3 to conceptualize and develop "Powr," a user-focused website aimed at promoting home sustainability. The platform engages users with questions and provides tailored recommendations for sustainable living practices.
- Led development of the project's backend in Python, ensuring seamless functionality and efficient data processing.
- Presented and demonstrated the final website design to the HooHacks judges, showcasing its functionality and potential impact.

EXTRACURRICULAR ACTIVITIES

Computer Network and Security Club at UVA — Charlottesville, VA
Computer Network and Security, Member — August 2023 - Present

- Engaged with like-minded peers on specific cybersecurity challenges using Secure Shell and Linux, fostering a dynamic learning environment where creative problem-solving and innovative solutions were encouraged.

SKILLS

- Areas of Expertise: Deep Learning, Computer Vision, Object Detection, Software Development
- Technologies & Tools: TensorFlow, OpenCV, Scikit-learn, Pandas, NumPy, Flask, MySQL, Linux, Git
- Programming Languages: Python, JavaScript, Java, C/C++, SQL
- Languages: English (Native), Hindi (Native), Malayalam (Proficient).