Srinivas Vasudevan svasude7@ncsu.edu

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Education

North Carolina State University, Raleigh, NC

Master of Computer Science

Aug 2024 - May 2026

Relevant Coursework: Software Engineering, Artificial Intelligence 1, Advanced Robotics, Neural Networks

GPA: 4.0/4.0

SASTRA Deemed University, Thanjavur, India

Bachelor of Technology in Computer Science and Engineering

Dean's list: Top 10% 2019 - 2020, Top 2% 2018 - 2019

GPA: 9.22/10.0

July 2018 - July 2022

Skills

Technologies: C++, Python, JavaScript, TypeScript, Java, Bash, Lua, ReactJS, Node.js, Flask, OpenGL, HTML5, CSS3

Databases: NoSQL, SQL, MySQL, MongoDB

Frameworks / Libraries: Tailwind, Mongoose, Express.js, OpenCV, Pandas, Keras, Numpy, TensorFlow, PyTorch, ROS, Gazebo

Tools: Git, Docker, Rviz, Nginx, OpenAI API, Ollama, LLM, AWS, Azure, VS Code, NeoVim

Work Experience

Grader, Advanced Robotics, North Carolina State University, Raleigh, USA

Jan 2025 - May 2025

- Modeled Triton bots with ROS, contributing to creating schematics for 10 bots deployed in final student projects.
- Designed a workflow with UNIX shell scripting to cut down the software setup of each bot by 60%.

Associate Technical Consultant, Salesforce, Inc., Bengaluru, India

Aug 2022 - July 2024

- Optimized and extended API integration in Java for retrieving CIBIL scores, increasing processing capacity by 90%.
- Spearheaded a Go-Live initiative to integrate the Salesforce customer application with a **React Native** app, driving a 20% increase in multi-platform user adoption and enabling offline functionality.
- Engineered a robust database object creation system leveraging **REST API** payloads from custom React Native App, improving data processing speed by 50%.
- Optimized **Azure CI/CD** pipeline with a **GIT** script, cutting deployment time by 40% through selective package deployments.
- Automated the creation of 40 Salesforce workflows and metadata files using Python scripts and Regex, reducing manual effort by 67%.

Associate Technical Consultant, Intern, Salesforce, Inc., Bengaluru, India

Feb 2022 - Aug 2022

- Developed a comprehensive web portal with **ReactJS** for over 50 million Fintech bank customers, streamlining online KYC processes to enhance user experience and ensure 100% regulatory compliance.
- Implemented automated test scripts using Python and JUnit to validate API functionalities, increasing test coverage by 70%. Research Assistant, Intelligent Systems Group, *SASTRA Deemed University, India* Feb 2021 Feb 2022
 - Created novel models using TensorFlow in Python for video anomaly detection, achieving a 94% AUC score on the UCSD Ped 2 dataset.

Projects

Web development: Created a full-stack web application that collects and predicts trajectories of weather balloons using **React** frontend, Flask Backend, SQLite Database, and Nginx reverse proxy server that handles traffic requests to an AWS EC2 instance.

Robotics: Developed an optimization algorithm in ROS for Simultaneous Localization and Mapping (SLAM) with active target tracking. Simulated and tested the algorithm in Rviz and Gazebo, then deployed it on a physical omnidirectional robot.

Computer Vision: Built an image processing tool using OpenCV in Python to enhance text clarity during live video streaming; leveraged an open-source live-streaming Android application and integrated the YOLO model to detect and remove text obstructions in real time; submitted the project to the Google Solution Challenge 2021 as part of a team effort.

Publications

Computer Vision

- "Object-centric and memory-guided network-based normality modeling for video anomaly detection", SIVP: Boosted model performance by 50% and AUC scores by 1%.
- "Residual Spatiotemporal Autoencoder with Skip Connected and Memory Guided Network for Detecting Video Anomalies", NPL: Enhanced AUC by 3% on LV dataset via spatiotemporal autoencoder fusion.

Extracurricular

Interests: Soccer, Gyming, Video games.