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, C++, Python, JavaScript, TypeScript, Java, Bash, Lua, ReactJS, Node.js, Flask, Django, HTML, CSS

Databases: NoSQL, SQL, MySQL, MongoDB

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

Tools: Git, Docker, Rviz, Nginx, Ollama, Google Cloud Platform, AWS, Azure, 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 with sensor fusion for Simultaneous Localization and Mapping (SLAM) with active target tracking. Simulated and tested the algorithm in Rviz and Gazebo, deployed it on an omnidirectional robot.

Computer Vision/AI-ML: 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/AI-ML

- "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, Weight training, Video games.