

Saketh Rajesh

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EDUCATION

Virginia Tech

Masters of Science, Computer Science (gpa: 4.00/4.00)

Blacksburg, VA

Aug. 2023 – May 2025

Virginia Tech

Bachelors of Science, Computer Science (gpa: 3.76/4.00)

Blacksburg, VA

Aug. 2021 – May 2024

EXPERIENCE

Virginia Tech

Graduate Research Assistant

Aug. 2024 – Present

Blacksburg, VA

- Developed full-stack tool to automate application of late policies across 7 assignment platforms, reducing instructor workload
- Streamlined deployment workflows with CI/CD pipeline, reducing cycles from hours to 10 minutes, enabling rapid feature releases and uninterrupted user access for 2,000+ students
- Leveraged: Ruby on Rails, React, MySQL, Docker, Kubernetes, JavaScript, CI/CD, Full-Stack Development

Aurora Innovation (Unicorn Startup)

Software Engineering Intern

May 2024 – Aug. 2024

Pittsburgh, PA

- Reduced OS release time by 400% by developing Python library that simulates deployment of autonomy stack to distributed environments in QEMU VMs
- Architected and configured network fabrics stored in AWS S3 for seamless integration into both simulation environments and real hardware systems, enhancing scalability and testing efficiency
- Leveraged: Go, Python, C++, Docker, AWS, PostgreSQL, Ansible, CI/CD, Buildkite, Bazel, Distributed Systems

Peraton

Software Engineering Intern

Aug. 2023 – Dec. 2023

Blacksburg, VA

- Developed Kafka consumer to ingest live satellite imagery from 250+ satellites, processed 100GB of data daily and stored in AWS S3 buckets, enabled end-users to access live map data with minimal latency
- Unlocked ability for field users to use internet-dependent product offline in remote environments, by engineering tablet-mode UI using React that enabled mission planning on a cached 3D globe model
- Scaled Spring Boot API horizontally by deploying to Kubernetes, increasing the microservice's capacity to handle 10,000+ requests per second while ensuring high availability and reliability under load
- Leveraged: Java Spring Boot, Docker, Kubernetes, Apache Kafka, React, PostgreSQL, EC2, CI/CD, SQL, TypeScript

IBM

Software Engineering Intern

May 2023 – Aug. 2023

Reston, VA

- Engineered event-driven architecture, enabling live audio to be processed through machine learning models on edge devices, prioritizing real-time insights and efficient resource utilization
- Enabled real-time monitoring of machine learning instances with sub-second latency by designing websocket endpoints to stream live performance metrics, improving system observability by 40%
- Leveraged: Python, Flask, Pytorch, Docker, Kubernetes, C++, AWS, EC2, S3, MLOPS, PostgreSQL, TCP/IP programming

Raytheon Technologies

Research Fellow

Aug. 2022 – May 2023

Blacksburg, VA

- Applied machine learning techniques to enhance threat detection and mitigation strategies in cybersecurity systems

Smarttwigs (Early Stage Startup)

Full Stack Software Engineering Intern

May 2022 – Aug 2022

Remote

- Built React Native payment UI and integrated Stripe Payment API, enabled secure transactions for 1,000+ customers

PROJECTS

Personal Website | sakethrajesh.com/projects (for more info and projects)

EcoCar EV Team | Lead Software Engineer

Dec 2022 – Present

- Led cross-functional engineering team of 25 to develop advanced driver assistance systems (ADAS) for 2023 Cadillac LYRIQ
- Developed IP/TCP communication framework supporting ADAS testing across MIL, HIL, and VIL environments
- Architected distributed system with ROS2, enabling real-time path planning and obstacle avoidance for realtime navigation
- Leveraged: Python, ROS2, CAN protocol, Docker containerization, C++, React, socket (TCP/IP) programming, VPN

TECHNICAL SKILLS

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

Databases: MySQL, MongoDB, PostgreSQL, Redis

Developer Tools: Git, Docker, Kubernetes, Bazel, Google Cloud Platform, AWS, Azure, Virtual Machines, TCP/IP

Frameworks/Libraries: React, React Native, Node.js, Flask, JUnit, Django, TensorFlow, PyTorch, skitlearn, pytest, ROS2