# Saketh Rajesh

 $\begin{array}{l} 408-248-2841 \mid \underline{saketh@vt.edu} \mid San \; Jose, \; CA \; (open \; to \; relocation) \mid US \; Citizen \\ \underline{sakethrajesh.com} \mid linkedin.com/in/saketh-rajesh \mid github.com/sakethrajesh \\ \end{array}$ 

# Education

Virginia Tech

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

#### Virginia Tech

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

#### Experience

#### Virginia Tech

Graduate Research Assistant

- 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

- Reduced OS release time by 400% by developing Python library that simulates deployment of autonomy stack to distributed environments in QEMU VMs
- Streamlined deployment by architecting a hardware-agnostic network fabric that integrates with simulation and hardware, enabling automated configuration retrieval from AWS S3 during build time
- Leveraged: Go, Python, C++, Docker, AWS, PostgreSQL, Ansible, CI/CD, Buildkite, Bazel, Distributed Systems

#### Peraton

Software Engineering Intern

- 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

- Delivered real-time insights and optimized resource utilization by engineering event-driven architecture and data pipelines to process live video and audio through machine learning models on edge devices
- 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

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

# Smarttwigs (Early Stage Startup)

Full Stack Software Engineering Intern

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

### Projects

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

#### **EcoCar EV Team** | Lead Software Engineer

- Leading cross-functional engineering team of 25 to develop advanced driver assistance system (ADAS) for 2023 Cadillac Lyriq
- Developing IP/TCP communication framework supporting ADAS testing across MIL, HIL, and VIL environments
- Architecting distributed system with ROS2, enabling real-time path planning and obstacle avoidance for realtime navigation
- Leveraged: Python, ROS2, CAN protocol, Docker, Kubernetes, 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

Aug. 2023 – May 2025 Blacksburg, VA Aug. 2021 – May 2024 Blacksburg, VA

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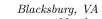
Aug. 2022 – May 2023

Blacksburg, VA

May $2022-{\rm Aug.}\ 2022$ 

Dec. 2022 – Present

Remote



Pittsburgh, PA

Blacksburg, VA

Reston, VA

Aug. 2024 - Present

May 2024 – Aug. 2024

Aug. 2023 - Dec. 2023

May 2023 - Aug. 2023