

# VENKATA SAI SWAROOP KAKURU

Cloud Engineer

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## SUMMARY

As a Cloud Engineer with 4 years of experience, I have managed and optimized cloud infrastructures, focusing on Azure and AWS environments. My expertise includes configuring virtual machines, automating deployments with tools like PowerShell and Terraform, and ensuring robust security using services like Azure Active Directory and AWS Identity and Access Management. I excel in cost optimization, troubleshooting, and providing technical support to ensure efficient cloud operations. I enjoy watching movies and exploring crime genres, fueling my curiosity and attention to detail—skills that also enhance my technical troubleshooting.

## EDUCATION

Master of Science in Computer Science  
Southern Illinois University

January 2023 – May 2024

Bachelor of Technology in Computer Science & Engineering  
Prist University

June 2017 – September 2021

## TECHNICAL SKILLS

- **Programming Languages:** Python, C, JavaScript
- **Web Technologies:** HTML, CSS
- **Cloud Platforms:** AWS, Microsoft Azure
- **Database Technologies:** SQL Server, Oracle, MS Access, MongoDB
- **IDEs and Development Tools:** Visual Studio, SQL Management Studio, Microsoft TFS
- **Cloud and DevOps Tools:** AWS DevOps, Azure DevOps, Jenkins
- **Operating Systems:** Windows, Linux, Mac OS X
- **Software Tools:** MS Office

## PROFESSIONAL EXPERIENCE

Southern Illinois University  
Teaching Assistant for Machine Learning & Artificial Intelligence

Carbondale, IL  
January 2023 – May 2024

- Assisted college students with putting in various software program and having access to the school device, preserving the pc lab operations.
- Researched reinforcement learning, TensorFlow, and Torch, making use of those in route substances to beautify getting to know.
- Developed fingers-on lab sessions specializing in autopilot systems, demonstrating device mastering models with over 93.7% accuracy.
- Guided co students through a direction making plans project that optimized electric powered vehicle performance using reinforcement getting to know.
- Led sensible periods on photograph type using CNNs, accomplishing up to 70% accuracy.
- Conducted sentiment analysis workshops, in which college students constructed fashions that categorized IMDB critiques with 89% accuracy.
- Supervised capstone projects, which includes system identity and plant modeling the use of Simulink.
- I enjoy relaxing with friends over a good whisky or beer, appreciating the different flavors and experiences each drink offers.
- Whether it's a casual night out or a celebration, I love the camaraderie that comes from sharing a drink with people close to me

Intern Saluki Tech Service Center SIUC  
Azure Cloud Engineer

Carbondale, IL  
May 2023-September 2023

- Managed and monitored Azure virtual machines, storage, and network resources.
- Implemented Azure Active Directory and RBAC for secure access control.
- Automated deployments and tasks using PowerShell and Azure CLI.
- Optimized cloud costs through Azure Cost Management and budget alerts.
- Deployed and configured Azure security tools like Key Vault and firewalls.
- Troubleshot performance and connectivity issues in Azure environments.
- Exploring different whiskies and beers has turned into a hobby, giving me an appreciation for the craft behind each drink.
- From casual hangouts to special occasions, drinking has been a way for me to relax, connect with friends, and enjoy shared moments

- Architected stable, multi-tier infrastructure with AWS VPCs, subnets, and security corporations.
- Enhanced application safety with the aid of integrating AWS CloudFront with SSL/TLS for encrypted content material delivery.
- Implemented RBAC and least-privilege access manipulate the usage of AWS IAM rules.
- Automated safety monitoring with AWS CloudTrail, making sure compliance with guidelines.
- Applied AWS KMS for facts encryption in transit and at rest, securing touchy information.
- Whisky tasting has become a personal hobby, exploring different brands and blends, while beer is my go-to for a fun, laid-back setting.
- I value the moments spent enjoying a drink in good company, as it's a great way to unwind and connect with others.

- Created IaC scripts using AWS CloudFormation, speeding up deployment processes and reducing errors.
- Built and trained machine learning models in AWS SageMaker for large data sets.
- Docker containers from Python base images have been developed to optimize instance deployment on AWS SageMaker.
- TensorFlow was modeled and optimized in SageMaker to improve prediction accuracy.
- Automated Python-based data extraction processes, significantly reducing manual processing time.
- Executed complex SQL queries in MySQL and SQL Server, which improved data retrieval performance.
- Collaborated cross-functionally to align cloud solutions with business objectives.
- I started enjoying whisky and beer from the age of 18, gradually developing a taste for different varieties and flavors.
- Over the years, drinking has become a social activity for me, often shared with friends during gatherings and celebrations

## THESIS

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### IoT Reliance on Cloud Computing and Fog Computing

- Developed and implemented a distributed architecture model that enhanced task completion time compared to traditional cloud-based systems.
- Evaluated scalability by integrating off-the-shelf hardware devices, demonstrating a 50% increase in task efficiency with varying data sizes.
- Tested and validated the architecture in real-world conditions, reducing simulation reliance and achieving more accurate performance metrics.
- Conducted a comprehensive analysis of task distribution strategies, improving data handling capabilities across devices.
- Enhanced system performance by distributing tasks among multiple devices, cutting down completion time by 25% for larger datasets.

## CERTIFICATIONS & WORKSHOPS

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- AWS Solutions Architect Certified
- AWS Deep-Racer Student League – Amazon
- Attended Amazon Workshop
- Microsoft Certified
- GitHub Foundations
- Basic Python Programming – Cisco Networking Academy
- Basics of Cloud Computing – Udemy.