**Venkatesh Shanmugam**

Virginia US | [svenkatesh.js@gmail.com](mailto:svenkatesh.js@gmail.com) | +1 (703) 216-2540

[LinkedIn Profile](https://www.linkedin.com/in/svenkatesh-js/) | [GitHub Portfolio](https://github.com/Venkat-Git98) | [Personal Portfolio](https://venkatjs.netlify.app/)

**SUMMARY**

Machine Learning Engineer with 4+ years of experience building scalable **ML/DL algorithms** for edge devices, optimizing **video processing pipelines** and **audio pipelines** to enhance real-time performance. Proven expertise in **TensorFlow** and **PyTorch**, with hands-on experience deploying models on edge hardware like Jetson Nano. Currently pursuing an M.S. in Computer Science, with a research background in implementing technical papers for multi-modal CNN/RNN architectures. Achieved 78% ROC-AUC in production models while reducing infrastructure costs by $6K annually.

**WORK EXPERIENCE**

**Founding Machine Learning Engineer** | **ScriptChain Health** | *Washington, DC*

* May 2024 - Present\*

**Machine Learning Engineer** | **Tata Consultancy Services** | *Chennai, India*

* Apr 2021 - Aug 2023\*
* \*EDUCATION
* \*George Washington University | Washington, DC
* Aug 2023 - May 2025\*

**SRM University** | **Chennai, India**

* Aug 2016 - May 2020\*

**TECHNICAL SKILLS**

**Programming Languages: Python**, **C++**, SQL, Java, Bash

**ML Frameworks & Libraries: TensorFlow**, **PyTorch**, scikit-learn, Keras, Transformers, DeepSpeed

**MLOps & Cloud:** AWS (SageMaker, EC2), GCP (Vertex AI), Docker, Kubernetes, CI/CD, MLflow

**AI Specializations: Deep Learning**, **CNN/RNN**, NLP, Computer Vision, Multi-modal Models, Edge Devices (Jetson Nano)

**Data Engineering:** Apache Spark, Kafka, Airflow, ETL Pipelines, Distributed Training, Model Optimization

**PROJECTS**

**Agentic Graph RAG for Building Codes** | *Multi-modal AI, Edge Optimization*

[**AI-Text Discriminator**](https://github.com/Venkat-Git98/AI-Content-Filter) | *NLP, Model Efficiency*

**EDUCATION**

**Master of Science in Computer Science (3.81 / 4.0)**, George Washington University *August 2023 - May 2025*

**Bachelor of Technology in Computer Science (3.5/4.0)**, SRM University *August 2016 - May 2020*