

# Shrikar A. Seshadri

1405 Casteel Lake Lane, Buford, GA, 30518 | 860-975-5410 | [rangarajanshrikar@gmail.com](mailto:rangarajanshrikar@gmail.com) | US Citizen

**Accolades:** International Top 10 @ 2024 Google Student Developer Challenge, 3x Hackathon Winner

## Education

Georgia Institute of Technology | Atlanta, GA

Expected Graduation, May 2027

Bachelor of Science in Computer Science, GPA: 4.0

**Relevant Coursework:** Algorithmic Design, Computer Systems & Networks, Machine Learning, Linear Algebra

## Experience

Machine Learning Intern, The Home Depot

Aug. – Dec. 2025

- Built **weighted product graph** with **5M+** product nodes, trained HeteroSAGE **Graph Neural Network** for product-bundling **recommendations** on HomeDepot.com. Enriched vertices using **text embeddings**.
- Integrated model as production **agent** using **Google's Agent Development Kit**.

Software Engineer Intern, MathWorks

May – Aug. 2025

- Optimized Computational Finance testbed with **weighted decision trees** to **reduce test costs** by **30%**.
- Analyzed feature distributions using violin and KDE plots to guide **normalization** and **feature selection**.
- Iteratively refined and validated model based on feedback from Quality Engineering team.

Software Engineer Intern, The Home Depot

Jan. – May 2025

- Built graph-based **collaborative filtering** algorithm using **BigQuery** features. Deployed it as **Vertex AI REST API endpoint** to power online product **recommendation engine**.
- Prototyped Chrome extension to demonstrate comparative **gains** over legacy recommendation systems.
- Cut** storage by **50%** by **flattening** graph structure into **Redis** NoSQL tables.

Data Science Intern, The Home Depot

Aug. – Dec. 2024

- Optimized **BigQuery SQL** bay reservicing prediction; **doubled** accuracy, statistically validated forecasting.
- Trained ARIMA, SARIMAX, and DeepAR models for sales forecasts using **BigQuery** for feature engineering.
- Deployed DeepAR LSTM model on **Vertex AI**. Boosted prediction **accuracy** by **400%**, **reduced** costs by **30%**.

Software Engineer Intern, MFactor Consultancy Services

May – Aug. 2024

- Curated **20-page** comparative report on **8** dashboard frameworks and **4** open-source libraries. Designed **7-factor** grading schema, produced detailed strength + weakness analysis.
- Built responsive React signal visualization dashboard with D3.js; integrated **AWS S3**, **PostgreSQL**, **Cognito** (JWT Authentication), and deployed web app onto S3 using **Amazon Amplify**.
- Built real-time business intelligence dashboard for admin, saved **20 hours/week** in sales workflow.

## Leadership

Cofounder, VigilTech Inc.

Jan. 2024 – May 2025

- Developed AI-powered application to analyze police **bodycam footage**, extract context, and **auto-generate** incident **reports** in minutes. Demoed product to police stations across the U.S.
- Raised **\$150K** in pre-seed **funding** led by Fusen World Ventures.

## Projects

Therapute | International Top 10, Google Student Developer Challenge

Jan. 2024 – Present

- Built real-time **pose correction** application using **MERN stack** and **MediaPipe** to extract body-pose key points. Deployed **Dynamic Time Warping** and static vector analysis models on **Cloud Run**.
- Applied **Neural Radiance Fields (NeRF)** to tailor pose correction to the user's body type.
- Designed **therapist dashboard** to review **Gemini** LLM-generated exercise summaries, assess patient videos, leave feedback, and assign personalized exercises **between sessions** using captured metrics.

## Skills

**Programming Languages:** Python (NumPy, Pandas, TensorFlow, PyTorch), Java, JavaScript, C++, HTML/CSS, SQL, React.js

**Tools & Frameworks:** AWS, GCP, OpenAI, React Native, Node.js, Bash, .NET, GitHub, Firebase, MongoDB, PostgreSQL

**Software:** Grafana, Tableau, WordPress + Elementor, Canva, Figma, ARCGIS, Microsoft Office and Google Applications