

# Shrikar A. Seshadri

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**Accolades:** International Top 10 @ 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

Software Engineer Intern, The Home Depot

Aug. – Dec. 2025

- Constructed **5M**-node and **20M**-edge weighted product graph, trained **Graph Neural Network** for product-bundling **recommendations** on HomeDepot.com. Enriched vertices using **text embeddings**.
- Deployed model as **agent** via **Google ADK**; used by **200+** analysts, impacts **45M** monthly customers.

Software Engineer Intern, MathWorks

May – Aug. 2025

- Developed automated test classification pipeline using **16**-heuristic **weighted decision tree**. Tagged low-value files for deletion/refactoring. **Reduced** test **costs** by **30%** and manual refactoring **time** by **60%**.
- Refined model with Quality Engineering feedback, achieving **95%** prioritization **accuracy**.

Software Engineer Intern, The Home Depot

Jan. – May 2025

- Built graph-based **collaborative filtering** algorithm using **BigQuery** features. Deployed as **Vertex AI REST API endpoint** (<100ms latency) to power online product **recommendation engine**. Serving **2B+** annual visits.
- Prototyped Chrome extension to demonstrate **4x speedup** and **50% cost reduction** compared to legacy systems. **Cut** storage an additional **50%** by **flattening** graph structure into **Redis NoSQL** tables.

Software Engineer Intern, The Home Depot

Aug. – Dec. 2024

- Optimized **SQL** bay reserving prediction; **doubled** accuracy. Trained SARIMAX, DeepAR LSTM models for sales forecasting using **BigQuery** for feature engineering. Boosted prediction **accuracy** by **400%**.
- Deployed DeepAR model on **Vertex AI**; **reduced costs** by **30%**, **increased sales 15%** in A/B tested stores.

Software Engineer Intern, MFactor Consultancy Services

May – Aug. 2024

- Curated **20-page** comparative report on **8** dashboard frameworks and **4** open-source libraries. Evaluated via **7-factor** grading schema; **saved** frontend team **10+ hours** of experimental evaluation.
- Built responsive React/D3.js signal visualization dashboard; integrated **AWS S3**, **PostgreSQL**, **Cognito** (JWT Authentication), deployed onto S3 using **Amazon Amplify**. **Supports 100+ customers**.
- 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 **police bodycam analysis** platform to **auto-draft** incident **reports**. **Reduced** report generation **time 90%**, **improved accuracy 12%**. Demoed 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**; extracted **24 keypoints**, deployed **Dynamic Time Warping** + vector analysis on **Cloud Run**. **<2 sec** feedback across **20+ sessions**.
- Improved** pose-matching accuracy by **30%** over baseline using **Neural Radiance Fields (NeRF)** to tailor correction to user 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:** GCP, AWS, Azure, React Native, Node.js, Bash, .NET, GitHub, Firebase, MongoDB, PostgreSQL

**Software:** Grafana, Tableau, WordPress + Elementor, Canva, Figma, ArcGIS, Microsoft Office, Google Workspace