Manasa Golla

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EDUCATION

Georgia Institute of Technology
Atlanta, GA

Bachelor of Science in Computer Science, Major GPA: 3.52/4.0
May 2026

- Relevant Coursework: Design & Analysis of Algorithms, Artificial Intelligence, Machine Learning, Computer Organization & Programming, Data Structures & Algorithms, Applied Combinatorics, Robotics & Perception
- Leadership Experience: AI Ethics Workshop Leader @ IRC, Technical Program Manager @ Hack4Impact

EXPERIENCE

Software Engineering Intern (Full-time)
Jan 2025 – Aug 2025

Avanos Medical
Atlanta, GA

- Engineered Power BI procurement dashboard with automated ETL pipelines, tracking 500+ invoices across 10 teams.
- Built & debugged enterprise RAG chatbot using Azure Cosmos DB vector search, LangChain, Semantic Kernel, and OpenAI embeddings, enabling natural language querying of over 200 documents/videos for 100+ daily queries.
- Deployed production conversational AI on Azure Foundry with vector search, saving 10 hours/week on sales queries.

Software Engineer
Jan 2025 – Present

Hack4Impact (501c3)
Remote

- Redesigning full-stack web platform with TypeScript/React/Next.js to support 500+ members across 14 chapters.
- Engineering CI/CD pipelines and repository standardization framework, establishing GitHub Actions workflows, dependency management, and documentation standards as model template for future chapter projects.
- Building scalable admin dashboard with centralized member/chapter management and role-based access control, automating Slack/GitHub/Notion API integrations to reduce onboarding from hours to under 5 minutes.

Natural Language Processing Researcher
Jun 2024 – Present

Georgia Tech Culture and Technology Lab
Atlanta, GA

- Conducted 15+ interviews with AI researchers to investigate hidden decision-making in NLP development, uncovering tradeoffs across 7 cost categories (e.g., time, labor, environmental, ethical) to inform responsible AI system design.
- Developed a qualitative framework analyzing 50+ papers and team workflows to map how implicit choices and perceived agency shape NLP system design; currently drafting findings for academic publication.

Software Engineer
Jan 2024 – May 2025

National Institutes of Health, Brain Protocols Research
Atlanta, GA

- Architected HIPAA-compliant speech app using AWS Cognito/DynamoDB, accelerating development by 5 weeks.
- Implemented dual-user authentication with role-based access control for secure data sharing across 100+ users.
- Optimized database schema and REST APIs, increasing patient engagement by 30% and completion rates by 25%.

PROJECTS

Analytics Dashboard (Bits of Good) | *TypeScript, Python, Streamlit, Docker*
2024

- Built GDPR-compliant data analytics platform processing 1,000+ events monthly for 20+ nonprofit projects.
- Developed TypeScript SDK for unified event tracking, reducing developer integration time by 35%.
- Optimized dashboard UX and refactored APIs to reduce setup time and support 15+ concurrent projects.

Neural Signal Processing for Balance Control Research | *Python, TensorFlow, Scikit-learn, Pandas*
2024

- Engineered machine learning pipeline to predict muscle activity from cortical EEG signals, processing 216 clinical datasets from Emory Rehabilitation Hospital spanning healthy aging and Parkinson's disease populations.
- Structured multi-model comparison framework implementing regularized CCA, PCA, and recurrent neural networks, optimizing hyperparameters through 5-fold cross-validation and achieving 68% improvement over linear regression.

Real-time ASL Recognition Platform (HackGT)| *Python, YOLOv5, Roboflow, PyTorch*
2023

- Created a real-time ASL gesture classifier using a YOLOv5 object detection model trained on 245 annotated images across 10 classes, with a custom preprocessing pipeline to improve detection accuracy.
- Optimized model performance through hyperparameter tuning and data augmentation, delivering 99.5% precision on most gesture classes and enabling deployment-ready inference for accessibility applications.

TECHNICAL SKILLS

Languages: Python, Java, SQL, HTML, CSS, JavaScript, TypeScript, C++, C
Libraries & Frameworks: React, Node.js, TensorFlow, PyTorch, scikit-learn, TailwindCSS, PostgreSQL, MongoDB
Developer Tools & Platforms: Azure, AWS, Postman, Power BI, Git, Docker, Jira, Apache Spark MLlib, Jest, JUnit