Soham Gunturu

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EDUCATION

Georgia Institute of Technology **Expected Graduation: 2026**

- ***B.S.*** *in Computer Science – Intelligence and Systems & Architecture Threads*
- Organizations: Executive Member & Discretionary Trader of Trading at GT, AI at GT, Data Science at GT, GROWER Lab, HexLabs

The Ohio State University - *College Credit Plus Program* **Jan 2023 – Apr 2024**

SKILLS

Technologies: Java, Python (Scikit-Learn, Pandas, Matplotlib, PyTorch, Flask), R, C++, SQL, Javascript (ReactJS, Next.js, Node.js), Docker
Background: Backend Development, Data Science and Visualization, Machine Learning, Artificial Neural Networks, CI/CD, Cloud Development
Interests: Full-Stack and Backend Software Development, Artificial Intelligence, Data Science, Quantitative Trading, Public Policy
Key Courses: Discrete Math, Linear Algebra, OOP, Data Structures&Algorithms, Multivariable Calculus, Computer Architecture, Objects&Design

WORK EXPERIENCE

Amazon ***Tempe, AZ***
Incoming Software Development Engineer Intern ***May 2025 – Aug 2025***

GROWER Lab **Atlanta, GA**
Research Intern ***Aug 2024 - Present***

- Researching power outages, grid resilience, geographical restoration differences, and outage impacts on other variables across the US.
- Using Amazon Web Services and Python Web-Scraping scripts to gather data from 15 states on power outage frequency, meteorological events, and grid factors; then using R and Python libraries to analyze and visualize the collected datasets.
- Creating a model for analyzing US Power Outages and estimating grid resilience using Machine Learning algorithms.

Nationwide Children's Hospital **Columbus, OH**
Computational Cancer Intern ***June 2023 – Dec 2023***

- Analyzed spatial datasets to identify differences between primary and metastatic tumors, resulting in a 20% faster differentiation which contributed to more targeted cancer treatments.
- Performed various bi-variate correlation studies and created visualizations to understand the architecture of brain tumors.
- Refined an Agent-Based Model's accuracy by 30% by fine-tuning PyTorch parameters.

Harvard University **Cambridge, MA**
Data Science Intern / Teacher Assistant ***Jun 2022 – Aug 2022***

- Researched different healthcare, educational, and other societal trends to better understand the impact of various federal policies.
- Helped 100+ students undergo *Gov1005:Big Data*, assisting students in creating analytics dashboards, achieving a 95% project completion rate.
- Streamlined the CI/CD pipeline by optimizing GitHub Actions for the Primer-Tutorials R Package used to teach GOV1005.

PROJECT EXPERIENCE

SpeakEasy | *Python, NIM, Flask, MongoDB, ReactJS, NextJS* ***Oct 2024 - Present***

- Used NVIDIA NIM to create a customized chatbot to simulate 'difficult' conversations based on user preferences and provide specific feedback as to how the user could improve their responses (accuracy: 93.7%, precision: 96.5%).
- Developed a User Interface and speech-to-text functionality using ReactJS and Next.js, and integrated MongoDB to customize the chatbot interactions for each user.

MediSenseAI | *Python, Scikit-Learn, Pandas, Streamlit, PyTorch, Transformers, Bert* ***Sep 2024 – Present***

- Built a Large Language Model (accuracy: 95.5%, precision: 95%, recall: 94.5%) to generate a diagnosis for a user's symptoms.
- Trained multiple Machine Learning models (Logistic Regression, RandomForestClassifier, DecisionTreeClassifier) to estimate the user's percentage of specific disease, including Arthritis, Diabetes, and heart disease.
- Created recommendations based on which part of their health profile most contributed to their increased risk of their sickness.

Georgia Tech RAG Chatbot | *Python, NIM, Docker, ReactJS, PostgreSQL, Scrapy, RAG* ***Aug 2024 – Present***

- Designed an LLM Chatbot utilizing Retrieval Augmented Generation in collaboration with NVIDIA, allowing prospective Georgia Tech students/families to easily get accurate information about the institute.
- Built a robust vector embedding pipeline using Scrapy to scrape relevant data and PostgreSQL to store and manage the data, enabling efficient information retrieval and enhancing the chatbot's response accuracy.
- Used Docker services to streamline scalability and performance for Georgia Tech information services.

ADDITIONAL INFO

Awards: Ohio Governor's Scholar, Hack OHI/O 1st place, Huntington Scholar, Presidential Gold Award, Presidential Undergraduate Research Award
Academic Honors: New Albany High School Salutatorian (Class Rank 2/367), ACT - 35, SAT – 1540, National Merit Finalist
Soft Skills: Leadership, Collaboration, Critical Thinking, Flexibility, Communication
Languages: Proficient in English and Telugu, Intermediate-level Spanish