SHYAM SAI BETHINA

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EDUCATION

Stanford University   **May 2027**
Master of Science in Computer Science (Artificial Intelligence)

Georgia Institute of Technology   **May 2025**
Bachelor of Science in Computer Science (Machine Learning, Information Infonetworks)   *GPA: 3.92/4.0 (Dean's List)*

Relevant Coursework: Data Structures and Algorithms, Intro to AI, Intro to ML, Automata and Complexity, Design and Analysis of Algorithms, Systems and Networks, Computer Organization and Programming, Linear Algebra, Applied Combinatorics, Statistical Theory

EXPERIENCE

LinkedIn   **May 2025 – Aug 2025**
Software Engineer Intern   *Sunnyvale, CA*
- Building an automated root cause analysis system for failed data pipelines for the Data Infrastructure org using Python

Amazon Web Services   **May 2024 – Aug 2024**
Software Development Engineer Intern   *Seattle, WA*
- Developed bulk data operations for AWS Cognito and pushed them into production, impacting over 12,000 customers
- Supported front-end requests by creating 3 APIs using Java, Spring Boot, and DynamoDB to manage customer data
- Reduced client-side processing time by 23% by creating a rate-limit algorithm to handle concurrent API calls with Node
- Enabled customers to delete and add multiple data points at once by building 10+ components with React and TypeScript

Georgia Tech Financial Innovation Lab   **Jan 2023 – May 2024**
Software Developer and Researcher   *Atlanta, GA*
- Forecasted prices of 60 Amazon products using LSTM-RNN with sentiment scores from product reviews with Scikit-learn
- Created an algorithm that simulated stock price movements using 1000+ newspaper headlines using Python and NLTK
- Predicted wheat futures volatility using the VARX algorithm on 120+ USDA reports with Python and Tensorflow
- Presented research about the models in front of 200+ other researchers at the Undergraduate Research Symposium

Zuora   **May 2023 – Aug 2023**
Software Engineering Intern   *Redwood City, CA*
- Delivered data migration feature to 1,000+ clients by creating 6+ APIs with Java, Maven, and Spring Boot
- Improved database transfer speeds by 14% by using PostgreSQL and gRPC with the upgraded HTTP 2.0 protocol
- Increased scalability of microservices by Dockerizing 3+ projects, enabling their deployment as images on AWS ECS
- Enhanced microservice accessibility to data from 3+ databases by using distributed SQL queries through the Trino engine

PROJECTS

Amazon Product Price Prediction | *Python, Tensorflow, Scikit-learn, Numpy, Pandas*   **Jan 2023 - Apr 2023**
- Leveraged BeautifulSoup, Selenium, and Keepa API to scrape reviews and historical prices of 60+ Amazon products
- Applied VADER algorithm on 4000+ Amazon reviews to produce sentiment scores and identify sarcastic reviews
- Implemented an early stopping-backed LSTM-RNN to predict price changes based on reviews prior to change
- Presented research about the model in front of 200+ other researchers at the Undergraduate Research Symposium

Deep-Learning-Playground | *Python, TypeScript, React, Flask, PyTorch, AWS*   **Aug 2022 - Dec 2022**
- Collaborated on development of the website for "Data Science @ Georgia Tech" club that allows 1000+ users to create their own machine-learning models using a drag-and-drop framework with 16 customizable parameters
- Created custom preprocessing feature using React and utilized Flask to create API endpoints to evaluate model data
- Improved file read/write speed by 14% by implementing S3 buckets to store models and preprocessing code files

Reinforcement Model for PONG | *Python, Keras, Tensorflow, OpenAI Gym*   **Jun 2021 - Aug 2021**
- Created a Convolutional Neural Network that plays PONG
- Used Tensorflow, OpenAI Gym, Google Collab, and Python to create new neural network that uses reinforcement learning that trains 5% faster than popular models online
- Co-authored research documentation describing concepts, creation of visualization of the models using Matplotlib

SKILLS

Programming Languages: Python, Java, JavaScript/TypeScript, C/C++, R, Go, Swift, HTML/CSS
Developer Tools: AWS, Git, Protobufs, Linux/Unix, Spring Boot, MongoDB, DynamoDB, Apache Maven, Docker, Google Cloud, Pinecone
Frameworks: PostgreSQL, MySQL, React, Node, SwiftUI, UIKit, gRPC, Flask, Express.JS
Libraries: Numpy, Pandas, Scikit-learn, TensorFlow, PyTorch, Google Firebase