

Maneesh Reddy Palem **Gonegary**

Brooklyn, NY Resident | Open to relocating anywhere in the US | Graduating May 2025 | Authorized to work anywhere in the US | (240) 406 3122 | maneeshreddy334@gmail.com | maneesh334.github.io | github.com/Maneesh334 | linkedin.com/in/maneesh-reddy-05718b208/

EDUCATION

State University of New York at Stony Brook, Master of Sciences in Computer Science

Aug 23 - May 25

Coursework: Distributed Systems, Generative AI, Data Science, Machine Learning, Networks, Algorithm Analysis

BITS Pilani, Bachelor of Engineering in Computer Science

Aug 18 - May 22

EXPERIENCE

Highlight Health, Software Engineering Intern | **Newark, NJ** | Health Insurance | **Java, Python, Azure, MapForce, Golang, Elasticsearch, Kibana, Logstash, MySQL**

May 2024 - Present

- Optimized data processing and OCR techniques for parsing and validating healthcare claims, iteratively enhancing accuracy and efficiency significantly.
- Developed and deployed Python REST APIs on Azure that handle incoming EDI files, validate, parse and store mapped data in a Postgres database. Extensively researched EDI, X12 and HIPAA documentation.
- Developed object-oriented Java applications to automate MapForce EDI mappings - reduced mapping time by **80%**.
- Implemented comprehensive API testing suite using PyTest, achieving **95%** test coverage across REST endpoints and reducing bug detection time significantly.
- Managed and maintained MySQL databases by writing and optimizing SQL scripts and queries, improving data integrity and system performance.
- Engineered dashboards for data analytics with Elasticsearch and Kibana on large-scale datasets ingested through custom built Logstash pipelines.
- Streamlined the team's development workflow by integrating services into a standard Software Development Life Cycle (SDLC) workflow with pull requests, branching and version control using Azure DevOps.
- Secured co-op and return offers.

North Carolina Institute for Climate Sciences, Student Research Assistant | Climate Research | **Python, AWS, LLMs**

Jul 2024 - Aug 2024

- Explored and implemented Self-RAG, Corrective RAG and Adaptive RAG strategies to build an effective agentic RAG application for climate datasets, effecting an improvement over vanilla RAG accuracy by **21%**.
- Secured co-op and return offers.

Stony Brook University, Research Assistant | **Stony Brook, NY** | Medical Research | **Python, LLMs, NLP, PyTorch**

Jan 2024 - Present

- Leveraged BERT models, LLMs and SQL to extract patient-specific attribute information to aid doctors at the Stony Brook hospital.
- Built a Decision tree based machine learning model that recommended medical interventions based on patient state. Leveraged LLMs for natural language interpretation and reasoning over model output.

Rupifi, Software Engineer | B2B Finance | **Go, Python, Redis, RabbitMQ, Postgres, SQL, React**

Jul 2022 - Aug 2023

- Primarily engaged with iterative development, improvement, testing and maintenance of >100 internal and external facing APIs. Integrated 3+ payment gateways into our checkout service.
- Developed our own webhook mechanism for sending, receiving and managing communications over text, WhatsApp and e-mail - improved anchor engagement by **32%**. Developed multiple caching systems with Redis. Implemented logging mechanisms for team services - reduced average bug resolution time by **72%**. Spearheaded integration of AWS for file management.
- Optimized front-end performance by implementing code-splitting, lazy loading, and other best practices in React, improving load times and reducing bundle sizes by 30%.
- Developed and integrated cross-team microservices for messaging/whatsapp, link shortener, email services among others. Wrote SQL scripts, managed databases and actively ran SQL queries in accordance with team requirements.

Flipkart, Software Intern | e-Commerce | **Java, Python, Docker, Kubernetes, Micronaut, Helm, Jenkins, Istio**

Jul 2021 - Dec 2021

- Containerized and deployed team services onto Kubernetes clusters. Engineered automated Jenkins pipelines for CI/CD workflows. Wrote Python scripts for performance metrics generation.
- Leveraged NCF, RNNs and autoencoders to build a modified product recommendation model. Developed and optimized .NET and C# applications.

CT Software Solutions, Software Intern | IT Consulting | **Kotlin, TensorFlow, Python, Java**

May 2020 - July 2020

- Created a Multi-Layer Perceptron model for gym recommendations based on user workout goals, workout style, location and possible peer compatibility.
- Developed a fitness tracking Android app that incorporated a personalized calorie counter, step counter and a comprehensive activity tracker, improving upon the accuracy of Google's pre-existing step counter by **62%**

PROJECTS

Predicting Flight Delays | *Python, Selenium, BeautifulSoup, JavaScript, PyTorch, R*

- Performed data cleaning, analysis and visualization on flight data scraped from the web with Selenium. Developed a predictive model which returned an accuracy of **81%**.

NES Emulator | *Rust*

- Programmed an emulator for the NES gaming console in Rust.

RAG for YouTube | *Python, GPT, Whisper, Pinecone, LangChain*

- Implemented a RAG that could take in multimodal input and answer questions in context of input YouTube video.

Natural Language Querying for APIs | *Python, GPT, SQL, Kafka, Streamlit, Airflow, Spark*

- Built a Streamlit application that let users perform natural language querying on any API. API data ingested, processed and stored in a Postgres database. LangChain's SQL agent used for natural language querying.

Virtual clothing try-on extension | *Python, JavaScript, Claude*

- Built a Chrome web extension that lets users try clothes on virtually.

Ocular Disease Recognition | *Python, Keras*

- Trained a ResNet CNN model for eye disease recognition which returned an accuracy of **89%**.

Supply Chain Tracking | *Python, Flask, JavaScript, jQuery*

- Applied blockchain concepts like Proof-of-work mining, hashing, consensus mechanism and cryptographic keys to model a verifiably secure supply chain.

EXTRACURRICULARS

Quizzing I actively participate in quizzing societies, and have hosted 10+ quizzes for hundreds of participants in multiple cities, and have been part of multiple televised competitions.

Reading I love reading - my favourite writers are Cormac McCarthy and Clarice Lispector.