# Rajeev Atla

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#### **EDUCATION**

#### Rutgers University - School of Engineering

Sep 2025 — Present

MS in Computer Engineering (Specialization in Machine Learning)

New Brunswick, NJ

Coursework: Reinforcement Learning, Multimodal AI, High Performance/Distributed Computing

#### Rutgers University - School of Engineering

Sep 2021 — May 2025

BS (Triple Major) in Computer Science, Computer Engineering, and Data Science

New Brunswick, NJ

Coursework: AI, Distributed Deep Learning, Data Science, Statistical Learning, Computer Vision

## SKILLS

- Programming Languages: Python, R, SQL, Java/Scala, C/C++, Rust, Elixir, MATLAB, Bash
- Libraries/Frameworks: NumPy, PyTorch, TensorFlow, Keras, Pandas, Scikit-Learn, NLTK
- Data Visualization: Matplotlib, Seaborn, Plotly, Tableau
- Cloud & DevOps: AWS, Microsoft Azure, Vercel, GitHub Actions, Docker, Kubernetes
- Tools & Databases: Jupyter, Apache Kafka, Git, Linux (Ubuntu), PostgreSQL, MongoDB, Jira

#### WORK EXPERIENCE

## Software Engineering Intern

May 2024 — September 2024

Remote

Atlait Inc.

• Developed a Python-SQL compression script for form data, reducing storage costs by 7% for enterprise clients

- Integrated PyTorch inference into Kafka-microservices architecture, improving mean response time by 96 milliseconds
- Updated codebase from ES5 to ES7 using HTML, CSS, and TypeScript, resulting in 23% faster mean page loads
- Optimized CI/CD pipeline to speed up build times by 13% ensuring efficient development cycles

### PROJECTS

dexMCP https://bit.ly/dexmcp

- Engineered Model Context Protocol (MCP) server exposing 5+ reusable tools and 5+ Pydantic models
- $\bullet$  Implemented parameter validation across 20+ typed fields and 100% of tool inputs
- Built asynchronous client using DSPy to auto-discover tools and execute multi-step requests

SuperconGAN  $\frac{\text{https://bit.ly/3z7JaqZ}}{\text{https://bit.ly/3z7JaqZ}}$ 

- Built a PyTorch-based GAN to model superconductivity data, enhancing generative AI applications
- Extracted and processed 80,000+ dataset entries from the UCI ML Repository using Pandas efficiently
- Released Python package on PyPI, achieving over 63,000+ downloads and widespread adoption
- Authored a LaTeX paper on findings and future scope, incorporating 500,000+ data points effectively

#### IMDB Movie Review Sentiment Analysis

https://bit.ly/3C3RpWK

- Led team of 5 to use Scikit-learn and Pandas to classify IMDB movie reviews
- Implemented a F1-based linear term-frequency bigram NLP model to achieve 90.5% accuracy
- Extracted data from 25,000+ movie reviews with Pandas and removed 20+ stopwords to improve model performance
- $\bullet$  Created confusion matrices and data visualizations for  $\mathbf{5+}$  models using Seaborn

# Cityscape (2nd Overall at HackExeter 2021)

https://bit.ly/3OZjJ07

- Lead a team of 4 in designing and implementing a city tour mobile app, resulting in 100+ vivid city tours for users
- Wrote controllers and models for MongoDB using MongooseORM to store 30+ kB of geographic data in NoSQL schema
- Built mobile user interface allowing users to search, review, rank, and explore 100+ tours using Flutter/Dart
- Constructed REST API using Express.js and nodemon to increase development velocity by 20% with hot-reloading

 $\underline{\text{https://bit.ly/3RsAyBL}}$ 

- Developed Elixir-Rust NIF application to transcribe images and documents up to 1 GB in size
- Reduced Docker image size by 53%, accelerating the build pipeline
- Improved and streamlined Phoenix server and React dashboard to ensure average latency is < 3s