

# Rajeev Atla

AI/ML Engineer applying cutting-edge techniques to build secure, scalable, complex systems

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## EDUCATION

### Rutgers University - School of Engineering

*Master of Science in Computer Engineering (Specialization in Machine Learning)*

Sep 2025 — May 2026

New Brunswick, NJ

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

### Rutgers University - School of Engineering

*Bachelor of Science (Triple Major) in Computer Engineering, Computer Science, and Data Science*

Sep 2021 — May 2025

New Brunswick, NJ

Recipient of the Eleanor and Samuel Sneath Endowed Merit Scholarship for Engineering Students

Coursework: AI, Distributed Deep Learning, Data Science, Statistical Learning, Computer Vision, Information and Network Security

## SKILLS

- **Programming Languages:** Python, R, SQL, Java, C/C++/CUDA, JavaScript/TypeScript, Rust, Bash
- **AI/ML:** NumPy, PyTorch, JAX, TensorFlow, Keras, Pandas, Scikit-Learn, OpenAI API, LangChain/LangGraph, DSPy, RAG, HuggingFace (Transformers, Tokenizers, Datasets, Diffusers), vLLM, pgvector, Pydantic, FastAPI, NLTK, spaCy
- **Data Visualization:** Matplotlib, Seaborn, Plotly, Tableau
- **Cloud & DevOps:** AWS, Microsoft Azure, OCI, GCP, Jenkins, GitHub Actions (CI/CD), Docker, Kubernetes
- **Tools & Databases:** Jupyter, PySpark, Kafka, Git, Linux (Ubuntu), PostgreSQL, MongoDB, Jira, Codex, Claude Code

## CERTIFICATIONS

- AWS: [Certified Cloud Practitioner](#), [Certified Machine Learning Specialist](#), [Certified AI Practitioner](#)
- Oracle (OCI): [AI Foundations Associate](#), [Generative AI Professional](#), [Data Science Professional](#), [Vector AI Search Professional](#)

## WORK EXPERIENCE

### AI Engineering Intern

May 2024 — Sep 2024

Altair Inc.

Remote

- Developed a Python-SQL compression script for form data, **reducing storage costs by 7%** for enterprise clients
- **Accelerated mean response time by 96 milliseconds** by integrating PyTorch inference models into Kafka microservices
- Created a **> 1TB RAG system**, utilizing A/B testing to evaluate and optimize AI-powered search accuracy
- Optimized CI/CD pipeline to **speed up build times by 13%** in an Agile environment, ensuring efficient development cycles

## PROJECTS

### dexMCP

<https://bit.ly/dexmcp>

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

### DocuMint

<https://bit.ly/DocuMint>

- Built a 5-agent LangGraph + Gemini API doc-modernizer with Gradio, achieved **90%+ modernization coverage** on sample docs, **cut manual edit time by 50%** with a **4-tab UX**, hardened with **8 deterministic pytest cases** and network-safe skips
- Authored a modular multi-agent system with structured prompts and severity-prioritized research, **lifting modernization accuracy by 35%** and **trimming LLM API spend by 20%**

### SuperconGAN

<https://bit.ly/3z7JaqZ>

- Built a PyTorch-based GAN to create synthetic superconductivity data of various materials, 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 **80,000 downloads** and widespread adoption
- Authored LaTeX paper detailing experimental design and validation methodology for **500,000+ data points**

### Cityscape Mobile Tour App (Won 2nd Overall at HackExeter 2021)

<https://bit.ly/3OZjJ07>

- Wrote controllers and models for MongoDB using Mongoose ODM 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