

Rajeev Atla

Data Scientist & AI Engineer Specializing in Predictive Modeling, NLP, and Data Analytics

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EDUCATION

Rutgers University - School of Engineering <i>Master of Science in Computer Engineering (Specialization in Machine Learning)</i>	Sep 2025 — Dec 2026 New Brunswick, NJ
Rutgers University - School of Engineering <i>Bachelor of Science (Triple Major) in Computer Engineering, Computer Science, and Data Science</i>	Sep 2021 — May 2025 New Brunswick, NJ

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

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

Coursework: AI, ML, Distributed Deep Learning, Data Science, Robotics and Computer Vision, Info 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, OpenCV, 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, GitHub Actions (CI/CD Pipeline), Docker, Kubernetes, Slurm
- Tools & Databases:** Jupyter, PySpark, Hadoop/Hive, Git, Linux, PostgreSQL, MongoDB, Jira, ROS2, 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
Atlait Inc.	Remote

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

• Engineered PyTorch inference models for real-time predictions, **optimizing latency by 96ms** and enabling faster decision-making

• Created a **> 1TB RAG-PySpark** system, utilizing A/B testing to optimize AI-powered search and recommendation accuracy

• Optimized Airflow-Hadoop data pipeline to **speed up analysis by 13%** in an Agile environment, speeding up development

PROJECTS

raceformer	https://bit.ly/raceformer
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• Engineered a high-fidelity “Real-to-Sim” validation pipeline processing **30GB of multimodal sensor data** (LiDAR, camera, radar) on 4x A100s, utilizing JAX-based vision-language model to generate ground truth scenarios for critical edge case simulation

• Achieved a **95% pass rate on safety metrics** by leveraging geometric priors to fine-tune RL policies, establishing clear performance baselines and **outperforming standard models by 35%** in neural path planning and risk avoidance

DocuMint	https://bit.ly/DocuMint
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• 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%**

dexMCP	https://bit.ly/dexmcp
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• 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

SuperconGAN	https://bit.ly/3z7JaqZ
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• 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