





Andy Jiang

 <https://github.com/ajiang0529>  <https://andyjiang.vercel.app/>
 <https://www.linkedin.com/in/andyjiang25/>  andy123jiang@gmail.com

EDUCATION

University of Maryland

Bachelor of Science in Computer Science

RELEVANT COURSEWORK

Courses: Object-Oriented Programming, Computer Systems, Discrete Math, Algorithms, Web Application Development, Compilers, Organization of Programming Languages, Data Structures, Mobile Application Development, Bioinformatic Algorithms, Artificial Intelligence, Data Science, Computer and Network Security, Calculus I, Calculus II, Linear Algebra, Applied Probability and Statistics

SKILLS

Languages: Python, JavaScript, TypeScript, C, Java, SQL, C, HTML, CSS, Rust, Ruby, OCaml, MATLAB, Kotlin
Data & AI/ML: Scipy, Pandas, NumPy, Matplotlib, PyTorch, Scikit-learn, LangChain, RAG Pipelines, Seaborn
Cloud & DevOps: Google Cloud Platform (GCP), AWS, Azure, Docker, Linux, GitHub, GitLab, CI/CD, Bash, Unix
Frameworks & Technologies: Django, Express.js, React.js, Node.js, MongoDB, ServiceNow

EXPERIENCE

University of Maryland | *Artificial Intelligence Researcher*

June 2024 – Present

- Designed and optimized ETL pipelines to process and integrate large-scale datasets, reducing processing time by 50% for 5,000+ data points
- Designed Retrieval-Augmented Generation (RAG) pipelines, improving contextual response generation by 20% through the integration of vectorized knowledge bases
- Leveraged machine learning algorithms to develop advanced tokenization techniques for different data types and linguistic challenges, improving model segmentation accuracy by 15%

NASA | *Software Engineer Intern*

June 2023 – December 2023

- Engineered a prototype NOVA using GPT-3.5 Turbo to enhance response accuracy and efficiency by 400%, leveraging document parsing techniques and PDF analysis to deliver contextually relevant results.
- Leveraged ServiceNow and agile/SCRUM development methodologies to develop and launch NOVA (NASA OCHCO Virtual Agent) agency wide, reaching 1,400+ users within launch week
- Leveraged ServiceNow to design and manage an employee information database with API integration that manages data for 2,400+ employees

Great Wall Inc. | *Full-Stack Web Developer*

September 2019 – August 2021

- Designed and developed a full-stack company website using HTML, CSS, and Google Map API, integrated with MongoDB, Express, and a JavaScript payment gateway, currently hosting 200+ active user accounts
- Integrated data visualization tools for website data analytics, increasing sales conversion by 35% via trend analysis of customer preferences
- Designed predictive analytics software, improving order processing time by 20% and a 15% increase in revenue

PROJECTS

RAG Pipeline with FAISS and BM25 | *Python, FAISS, BM25, LangChain, OpenAI GPT-4*

February 2024

- Engineered a hybrid document retrieval system integrating BM25 for term-based ranking and FAISS for semantic search, enhancing retrieval accuracy by 35%
- Developed a context-aware question-answering pipeline using LangChain and OpenAI's GPT-4, improving response relevance by 40%
- Optimized ETL pipelines for document processing, reducing query latency by 50% through efficient FAISS vectorization and BM25 ranking