JACINTO GOMEZ

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EDUCATION

New York University — 2022-2024
Master of Computer Science - GPA: 3.93
Relevant Coursework: Data Structures, Algorithms, Artificial Intelligence, Software Engineering

Cornell University — 2016-2020
Bachelor of Mechanical Engineering

SKILLS

Languages	Python, C++, JavaScript, Java, SQL, HTML/CSS
Frameworks	Django, Node.js, Vue, Flask, Docker
Systems & Tools	AWS, Firebase, MongoDB, MYSQL, PostgreSQL, CI/CD, LangChain

EXPERIENCE

Backend Engineering Intern — 12/2024 - Present
UCapital Fintech Group — *New York, NY*

- Built a **multi-threaded** system to concurrently re-populate our database with millions of financial market data points accessed through market APIs, resulting in a nearly **90% reduction** in update wait time.
- Developing a client-side **AI chatbot** with a modular AI completion system, enabling **900K+ users** to seamlessly switch between **AI providers** (OpenAI, Anthropic, DeepSeek) and dynamically select different LLM variants (Claude Haiku vs Sonnet, GPT-4 vs GPT-3.5).
- Enhanced our AI system to leverage **retrieval augmented generation (RAG)** with **Pinecone**, **PGVector**, and **AWS OpenSearch**, allowing investors to receive contextualized chatbot responses about our company and financial data, and ensuring system scalability.
- Utilized **Python's Celery shared tasks** to enable **asynchronous** database updates in **Django REST framework**, ensuring customers always have the latest news and investment data.

Software Engineering Fellow — 07/2024 - 10/2024
HeadStarter AI — *Remote*

- Integrated multiple **LLMs (Large Language Models)** into interfaces via **AWS Bedrock**, expanding each platform's capabilities for more versatile AI-driven insights.
- Developed a **SaaS** platform using **React** and **Next.js** to generate AI flashcards for educational use, Enhancing study efficiency for students and educators.
- Deployed an inventory tracking system with **OpenAI Vision API** integration, streamlining inventory updates through real-time camera feed processing.

Software Engineer — 08/2023 - 05/2024
NYU Dibner Library — *New York, NY*

- Created **RESTful** backend endpoints in **Node.js** to support reservation functionality, resulting in streamlined booking processes for over 200 library patrons.
- Managed cloud deployment on **AWS EC2**, ensuring reliable web hosting and access to library availability data.
- Resolved critical **Git merge** conflicts, allowing smoother collaborative development and preventing workflow interruptions for the team.

OTHER EXPERIENCE

Hack.Diversity Software Engineering Fellowship. Selected for a competitive fellowship focused on bridging the gap between academic training and professional software engineering. Collaborated with 30+ fellows from underrepresented backgrounds, gaining industry mentorship, technical training, and career development support.

NYU Tandon Bridge. Lead programming teacher for 3 cohorts of 100-300 students, covering **C++**, **algorithms**, **data structures**, and **Operating Systems** concepts. Additionally enhanced student understanding by developing AI-powered interactive tools to help teach and visualize Big-O runtime complexity and sorting algorithms.