Siddharth Nair

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Summary

Software engineer with strong experience in backend development and automation. Proficient in Python, SQL, and Java, with achievements in building scalable data pipelines and optimizing backend systems. Successfully implemented Infrastructure-as-Code and developed web-based automation tools to enhance backend operations at JPMorganChase. Eager to leverage technical expertise and innovative solutions to drive backend engineering excellence.

Skills

- **Languages**: Python, SQL (Oracle, Postgres, MySQL), Java, JavaScript, TypeScript, Bash
- **Data Engineering & ML**: ETL, Data Pipelines, Vector Databases, Relational & Non-Relational Databases, Pandas, scikit-learn, AWS Sagemaker, Generative AI (OpenAI, LangChain, LangGraph), Pydantic, MCP
- **Backend & APIs**: REST APIs, FastAPI, Spring Boot, Microservices, Node.js
- **Frontend & Visualization**: React, HTML5, CSS, Plotly, Seaborn, Voila, Figma
- **DevOps & Infrastructure**: AWS, Azure, Terraform, Git, CI/CD, Redis
- **Methodologies & Tools**: Agile Methodology, Waterfall, Jira, Confluence, Playwright, AWS CloudWatch

Work Experience

JPMorganChase **Jun 2025 - Aug 2025**
Software Engineer Intern *Plano, TX*

- Delivered multiple large-scale initiatives impacting 1,000+ engineers across Chase Digital and indirectly 85M+ customers.
- Built Infrastructure-as-Code for 100+ Akamai CDN properties by automating their export into Terraform modules with dynamic .tfvars ensuring faster and more reliable deployments across Chase public websites.
- Built a multimodal data ingestion pipeline from the ground up for an Agentic AI RAG application, taking full ownership of architecture, development, and requirement definition with product owners; improved search across architectural documentation using role-specific prompt engineering and Reciprocal Rank Fusion.
- Implemented a Redis cache POC for frequently queried vector embeddings, reducing time taken for FAQ retrieval by minimizing queries of the full vector DB.
- Architected an MCP-based search layer to abstract low-level vector DB queries, enabling AI agents to perform standardized hybrid retrieval with extensibility, role-specific outputs, and enterprise-scale usability.

Texas A&M University Department of Recreational Sports **Jan 2023 - Dec 2024**
Intramural Sports Supervisor *College Station, TX*

- Contributed to managing intramural flag football operations for 14,000+ participants per semester, managing referee teams, and supervising tournaments while officiating games.
- Coached referees through targeted training and one-on-one mentoring, with several advancing to supervisory roles.
- Recognized for conflict management and rules knowledge; selected to officiate special events and regional tournaments.

JPMorganChase **Jun 2024 - Aug 2024**
Software Engineer Intern *Houston, TX*

- Deployed tooling and forecasting models to accelerate backend operations, reducing team bug resolution time by 50%.
- Designed web-based automation for parameterized batch jobs, streamlining environment migrations and bug resolution.
- Engineered a time-series forecasting model with 5.38% SMAPE, leveraging historical data and macroeconomic indicators to improve accuracy.

AI4All **Jan 2023 - Jan 2024**
Student Teacher *College Station, TX*

- Taught core algorithm concepts and model training techniques; coached students on showcasing project impact effectively.
- Facilitated Apply Al program events and guided 4 student groups per term through project milestones, collaborating with industry partners to ensure alignment with real-world applications.

JPMorganChase **Jun 2023 - Aug 2023**
Software Engineer Intern *Houston, TX*

- Developed a full-stack analytics dashboard for the Fundamental Review of the Trading Book team, enabling real-time evaluation of trader performance against Market Risk benchmarks.
- Introduced dynamic filtering and historical drilldown capabilities to enhance pattern detection and compliance analysis.

JPMorganChase **Jun 2022 - Aug 2022**
Software Engineer Intern *Houston, TX*

- Created an internal alternative to Comet.com for model monitoring and control using Python and FastAPI, enhancing the team's ability to track and manage machine learning models effectively.
- Developed an interactive dashboard enabling both real-time monitoring and direct control of ML training jobs and deployment status, with live logging and visual analytics.

Lumen Technologies **Jun 2021 - Aug 2021**
Software Engineer Intern *Houston, TX*

- Engineered a Python program to generate daily flat files from database inputs for logging and reporting; implemented monthly database resets with shell scripts to prevent data over-accumulation and maintain system performance.

Education

Texas A&M University **Aug 2019 - Dec 2024**
Computer Engineering *College Station, TX*

- **Achievements:** National Merit Scholarship, Presidents Endowed Scholarship
- **Coursework:** CSCE 452 - Robotics, CSCE 420 - Artificial Intelligence, CSCE 411 - Analysis of Algorithms