

Atul Vasudevan

Senior AI / Software Engineer

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PROFILE

Senior AI Engineer with 6+ years of experience designing and delivering robust, scalable software solutions. Experienced in building AI-driven agent frameworks, orchestrating LLM-powered services, and implementing model lifecycle automation using Databricks. Strong track record of end-to-end system ownership, cross-functional collaboration, and delivering production-ready AI-powered applications.

KEY ACHIEVEMENTS

- **AI Automation:** Built and deployed an LLM-powered NLP pipeline that automates section structure and entity extraction in complex legal documents, reducing manual effort in form creation by ~50%.
- **System Reliability:** Implemented Databricks MLflow promotion automation for stable model upgrades across environments, ensuring reliable release cycles.
- **Performance Engineering:** Engineered scalable backend services with improved throughput and reduced response latency across critical document workflows.
- **Leadership:** Mentored a team of developers and drove engineering improvements that increased delivery velocity and production quality.
- **Architecture:** Designed agent workflows combining LLM reasoning with rule-based heuristics for context-aware decision making.

TECHNICAL SKILLS

- **Languages/Frameworks:** Python, FastAPI, Django, TypeScript, Angular, VueJS, Azure Functions, Databricks.
- **AI/Machine Learning:** LLMs, NLP (embeddings & similarity search), Vector Search, Agent Orchestration, LangChain, LangGraph, LangSmith, Langfuse, Model Deployment & Versioning, MLflow.
- **Database:** PostgreSQL, MongoDB, MySQL, Databricks (Data Engineering).
- **DevOps & Tools:** AWS (Lambda, SQS, SNS), Docker, Kubernetes, Azure DevOps, CI/CD Pipelines, SEQ, Azure Monitor, Vercel, Supabase, Trigger.dev, Resend.

PROFESSIONAL EXPERIENCE

Senior AI Engineer
Tensis, Sydney, NSW

Dec 2024 – Present

- Architected AI agent frameworks to orchestrate multiple tools for context-aware decision making, combining Databricks LLM inference with custom tool logic.
- Developed and productionised LLM-powered extraction services using OpenAI APIs, combining inference with rule-based fallback heuristics to handle edge cases.
- Implemented Databricks MLflow model lifecycle management (versioning, deployment & automated endpoint updates), ensuring reliable promotion across development environments.
- Designed data ingestion pipelines using Databricks to facilitate high-volume data processing and analytics.
- Developed and optimized scalable applications using Python Azure Functions and FastAPI, significantly improving system performance and maintainability.
- Implemented comprehensive logging and telemetry for LLM-powered services using SEQ and Azure Monitor, improving visibility into system behavior and reducing mean time to diagnosis.

- Managed Azure infrastructure and maintained CI/CD pipelines using Azure DevOps to automate deployment processes.

Senior Full Stack Engineer

Mar 2023 – Nov 2024

Xref, Sydney, NSW

- Led a team of five developers to design robust systems, ensuring alignment with organizational goals and best practices.
- Designed and maintained complex database schemas to ensure optimal data storage and retrieval mechanisms.
- Proactively identified areas for improvement in processes, workflows, and technology stacks, driving continuous optimization of the platform.
- Mentored junior developers through technical reviews and led recruitment efforts for full stack engineers, building a high-performing and culture-focused team.

Full Stack Engineer

May 2021 – Mar 2023

Xref, Sydney, NSW

- Designed and implemented user interfaces using Angular, ensuring a seamless user experience.
- Developed robust server-side logic and APIs using Python (Django) and PostgreSQL for efficient front-end/back-end communication.
- Improved service stability and response performance through schema optimization and code refactoring in a microservices environment.

Junior Full Stack Developer

Jan 2021 – May 2021

Codesource, Sydney, NSW

- Contributed to feature development and automation tasks using Vue, Angular, and Python (Django/PostgreSQL), including cron job scheduling and form optimization within an Agile workflow.

Associate Consultant

Aug 2016 – May 2018

Oracle Financial Services Software, Bengaluru, India

- Enhanced automation tools (OATS) and designed UI/validations for the Flexcube Payload Service (FPS) using Java, PL/SQL, and JavaScript, streamlining testing for major banking clients.

ADDITIONAL EXPERIENCE

Full Stack Developer (Internship), Kontext Pty Ltd

Sep 2020 – Dec 2020

- Designed APIs using GOA DSL and contributed to full-stack features using Golang, VueJS, and MongoDB.

Research Assistant (Part Time), Marketing Artificial Intelligence Lab

May 2020 – Oct 2020

- Performed web scraping and applied basic NLP techniques using spaCy for dataset preparation.

Software Developer (Internship), Future Minds Lab

Jun 2019 – Feb 2020

- Built features for a Chrome extension using Python, ReactJS, Material-UI, and AWS (Lambda, S3).

EDUCATION & CERTIFICATIONS

Master of Information Technology (Artificial Intelligence)

2018 – 2020

UNSW Sydney, Sydney, Australia

Bachelor of Engineering (Computer Science)

2012 – 2016

Dayananda Sagar Academy, Bengaluru, India

Certification: Mate to Manager – Australian Institute of Management (AIM)

REFERENCES

References available upon request.