Abhigya Ghimire

Lead Software Engineer – Backend, Cloud & AI Systems

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PROFESSIONAL PROFILE

Software engineer with 8+ years of experience building high-performance cloud platforms and intelligent systems. Specialized in .NET 8, Python, FastAPI, and Azure. Adept at designing agentic AI experiences using OpenAI Agents SDK and Model Context Protocol. While I thrive in backend architecture and DevOps, I'm equally capable across the full stack—delivering polished frontend experiences in React and Next.js when needed.

CORE COMPETENCIES

- **Languages**: C#, Python, TypeScript , JavaScript

- **Backend Frameworks**: ASP.NET Core, FastAPI, Node.js, Entity Framework Core, SQLAlchemy

- **Datastores & Messaging**: MS SQL Server, PostgreSQL, Redis, MongoDB, Kafka, Azure Service Bus

- **Cloud & DevOps**: Azure (Functions, Container Apps, Key Vault, OpenAI), AWS (Bedrock, Lambda, ECS), Docker, Kubernetes, Terraform, GitHub Actions CI/CD

- **Generative AI**: OpenAI Responses / Agents SDK, Azure OpenAI (GPT-4o, DALL·E 3, Whisper), Fine-tuning, Vector DB / RAG, Agent Orchestration, Model Context Protocol, Prompt Evaluation

- **Architecture**: Domain-Driven Design, Clean Architecture, Microservices, Event-Driven Systems

- **Front End**: React, Next.js, Tailwind

- **Leadership**: Technical mentoring, distributed agile teams, documentation, process optimization

PROFESSIONAL EXPERIENCE

- **Car Capital Technologies** — Feb 2024 - Present
  Lead Full-Stack Engineer — *Remote*
  - **Financial Risk Modeling:** Built multiple production-grade financial models used in 80K+ auto loan evaluations, reducing manual review by 60%.
  - **End-to-End Product Development:** Modernized legacy infrastructure into 10+ microservices and serverless APIs, decreasing average response time by 35%.
  - **Cloud & API Services:** Designed .NET 8 / Azure Functions APIs supporting 500+ RPS with structured logging, validation, and retries.
  - **Full-Stack Delivery:** Delivered React + Next.js dashboards with real-time underwriting tools used by 100+ active dealers daily.
  - **Process Automation:** Integrated GitHub Actions pipelines, cutting deployment cycles from 2 days to under 1 hour.
  - **Audit & Logging:** Engineered audit trail system capturing 100% of credit decisions and loan events for regulatory compliance.
  - **Technical Leadership:** Mentored a cross-functional team of 5 engineers, improving code quality metrics and delivery speed by 20%.

- **KB Home** — Oct 2021 - Jan 2024
  Senior Full-Stack Engineer — *Pomona, CA*
  - **Modernization Initiatives:** Migrated legacy systems to modular full-stack architectures, boosting system throughput by 40%.
  - **Scalable Web Platforms:** Built platforms supporting 1M+ monthly users with fast response times and high availability.
  - **AI-Driven Automation:** Integrated GPT modules to automate internal documentation workflows, saving 20+ hours/month.
  - **Cross-Functional Collaboration:** Worked with product and ops to align features with business needs, producing clear documentation.

- **ClearOne Advantage** — Sep 2017 - Sep 2021
  Software Engineer — *Baltimore, MD*
  - **Full-Stack Development:** Delivered secure web apps with seamless backend/frontend integration across diverse business units.
  - **Data Pipelines:** Built and maintained APIs and pipelines handling sensitive financial data across internal services.
  - **Performance Optimization:** Reduced critical verification rejections by 95% through efficient backend refactoring.
  - **Agile Practices:** Participated in daily standups and sprint planning, driving cross-functional delivery velocity.

OPEN SOURCE & SIDE PROJECTS

Agentic AI & Open Source Innovation

- **EchoDesk**
  Open Source Project — *Remote*
  - **Agentic AI Integration:** Built an AI-driven customer support dashboard using agent orchestration and LLM reasoning loops.
  - **Tech Stack:** FastAPI, OpenAI Agents SDK, JavaScript, Docker.
  - **Open Source:** MIT-licensed and available on GitHub (EchoDesk).

- **EchoDoc**
  Open Source Project — *Remote*
  - **AI Document Systems:** Created a document RAG builder and chatbot platform with support for fine-tuning and RAFT models.
  - **Tech Stack:** Python, FastAPI, HTML, JS, Docker.
  - **Features:** Built-in job queue, real-time chat, file uploads.
  - **Open Source:** MIT-licensed and available on GitHub (EchoDoc).

- **EchoRide**
  Tesla Assistant App (WIP) — *Remote*
  - **In-Car Agentic AI:** Designing a contextual voice assistant with Whisper API and multi-turn planning to interact with Tesla APIs.
  - **MCP Integration:** Implements Model Context Protocol for structured tool/memory exposure.
  - **Tech Stack:** TypeScript, FastAPI, Whisper, Agents SDK.

- **Microsoft Semantic-Kernel**
  Open Source Contributor — *Remote*
  - **AI/ML Expansion:** Contributed DALL-E 3 image generation support (PR #8068) to the official repo.
  - **Open Collaboration:** Worked with MS engineers to align on SDK architecture.

- **Pari Voice**
  Technical Lead   *Remote*
    - **STT Chat Interface:** Built a multilingual ChatGPT app using Azure Speech + Whisper APIs.
    - **Modular Design:** Enabled hot-swapping of LLM models with no downtime.

- **BTCPay Server**
  Open Source Contributor   *Remote*
    - **Enterprise Features:** Added invoice/export enhancements to production crypto payment stack.
    - **Tech Stack:** C#, ASP.NET, SQL Server.

EDUCATION

- **Arizona State University**   2021
  M.S. in Software Engineering
- **University of California, San Diego**   2017
  B.S. in Management Science & Computer Science