

Mukund Biradar

Senior Python & AI Engineer | LLM & Cloud Solutions | Full stack Developer

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Professional Summary

Immediate Joiner & Ready to relocate

I am a Senior Python & AI Engineer with over 12 years of experience building scalable, reliable and user-friendly systems. I specialize in optimization, scheduling and algorithms, tackling complex NP-hard problems to deliver practical solutions. My work spans full-stack development, cloud environments (Azure, AWS, private) and AI/ML systems, including multi-agent AI workflows and LLMs. I thrive at the intersection of technology and business, translating complex requirements into solutions that are efficient, maintainable and impactful. I am passionate about driving innovation and creating systems that make a tangible difference.

Skills and Technologies

- **Programming Languages:** Python, Java, TypeScript, JavaScript,
- **Frameworks & Libraries:** Django, Flask, React JS, FastAPI, Pandas, Spring Boot, logging, RESTful API design, asynchronous programming, scalability, performance optimization.
- **ORM & Databases:** CosmosDB, SQLAlchemy, SQLModel, MySQL, PostgreSQL, Oracle, MS SQL Server
- **Cloud & DevOps:** Azure AI Foundry, Azure DevOps, AWS, Docker, GitHub Actions, GitLab
- **AI/ML & LLMs:** LangChain, PDF-trained LLM, Agentic AI, Vector Databases, RAG
- **API Development & Security:** RESTful APIs, OAuth, JWT Authentication, JSON, API testing, pytest, unittest, code reviews
- **Scripting & Automation:** Python scripting, Ansible, Kubernetes, CI/CD pipelines unittest, pytest, Selenium, Postman
- **Data Engineering & BI:** PostgreSQL, MySQL, Oracle, Tableau, Power BI, DeepInsight, data visualization
- **Networking & Security:** Network Infrastructure & Servers, Security Protocols (SSL/TLS, OAuth 2.0)
- **Methodologies & Tools:** Agile, Scrum, Kanban, Jira, Azure dashboards
- **Language :** English (Fluent), German (A2 – Actively pursuing)

Professional Experience

1. AIKIT Digital (Deloitte – Short Term) Senior Project Associate , Frankfurt , Germany. [Oct 2025 – Current]

- Designed, created and registered new AI agents within an existing Azure AI Foundry multi-agent system, improving system extensibility.
- Configured AI agents, planners and group chat manager in Azure Conversational AI Foundry for a customer.
- Integrated agents with Cosmos DB and vector databases to enable faster, more accurate document- and API-based retrieval.
- Designed Lang Chain workflows and executed end-to-end agent testing, validating plan execution, routing and data responses.
- Optimized agent performance and backend integration, reducing response latency and increasing retrieval accuracy.
- Designed and implemented optimization and scheduling solutions using Python to solve complex task (using planner) allocation and resource management problems.
- Exposed these algorithms via FastAPI endpoints, enabling scalable and real-time access to optimized schedules.
- Integrated modern frontend technologies (React/JS/PWA) with Python-based backends (FastAPI), enabling scalable full-stack solutions.

2. Leibniz Rechenzentrum (LRZ) Senior Python Developer, München, Germany. [Apr 2023 - Jun 2024]

- Developed containerized Python microservices using FastAPI and asyncio, deployed via Docker for scalable and efficient backend systems.
- Built Flask-based models on PostgreSQL and leveraged Redis caching to reduce database load by 70%, improving application performance.
- Developed Python microservices to handle **complex optimization problems** efficiently.
- Developed custom browser extensions and sidebar components using JavaScript/TypeScript, enabling quick access to dashboards, AI insights and reporting tools.
- Streamlined server setup and optimized performance using Ansible, enhancing system reliability and maintainability.
- Connected applications securely to European Data Spaces via REST APIs, enabling compliant data exchange and interoperability.

3. Abacus Staffing & services Pvt Ltd (IBM) Python Lead, Bangalore, India. [July 2022- Feb 2023]

- Led Python development teams and collaborated across projects to deliver high-quality backend solutions
- Automated workflows with Python scripts, saving 25+ hours per week.

- Set up CI/CD pipelines with Git, GitHub Actions, Azure DevOps and Kubernetes.
- Implemented OAuth2 and JWT authentication for secure API access.
- Managed project modules and Python packages in JFrog Artifactory and utilized them across projects to ensure consistent builds and deployments.
- Improved testing coverage with pytest and Selenium, reducing production bugs.

4. BR Raysoft Global Pvt Ltd (Intel, Infosys) Python Consultant (UI/UX), Bangalore, India [Sep 2021 - Jun 2022]

- Improved and fixed responsive UI/UX issues on Intel.com by enhancing existing web components using JavaScript, HTML, CSS and Coveo, resulting in a more seamless and user-friendly experience across devices.
- Configured Coveo Search for indexing and metadata setup by integrating data XML files, databases, Salesforce and Amazon S3 to ensure seamless content display including processor, software, graphics information & complete product listings.
- Developed Python scripts to fetch and separate data based on metadata, optimizing content accessibility on intel.com.
- Collaborated with global Intel teams to configure XML tags, fix metadata and standardize data formats using URLs, improving search accuracy via Coveo Search.

5. Sinomonitor International Pvt Ltd Senior Software Engineer, Beijing China [May 2015 - Aug 2020]

- Led full lifecycle development of software applications, from requirements analysis and object-oriented design to coding, testing and maintenance, ensuring standards compliance.
- Developed a teaching platform and an e-commerce website using Django and PostgreSQL, delivering secure, scalable and user-friendly web applications.
- Designed intuitive UI, optimized performance and integrated systems, software analysis, quality assurance and project management to deliver robust solutions.
- Built Power BI dashboards integrating semantic layer for automated insights, reporting and visualization.
- Built a Python-based data product that ingests, processes and visualizes production and operational data, providing real-time insights and recommendations for optimized decision-making.
- Built e-commerce portal and a teacher job search platform using Django, ensuring secure, scalable and user-friendly features.
- Created data visualization dashboards using DeepInsight, Tableau and Power BI and developed ML-based video analysis tools for enhanced analytics.

6. Develop Dreamz Industries Pvt Ltd Database Administrator (DBA),Pune ,India [Feb 2014 - Apr 2015]

- Designed and optimized databases (MS SQL, PostgreSQL, MySQL, Oracle) for better performance and scalability.
- Implemented query optimization techniques and monitored system health using Azure Monitor and Log Analytics.
- Assisted in deploying .NET, Java and C++ applications, managing server configurations and project setups.

7. Psystems IT Services Pvt Ltd Database Engineer, Pune, India [May 2012 - Jan 2014]

- Built secure, compliant database schemas for hospitality, healthcare and real estate systems.
- Managed Linux servers (Fedora, CentOS, RHEL), ensuring uptime and optimized performance.
- Provided technical support to developers, facilitating smooth application deployments and system integrations.

Education

Master of Computer Science - University of Pune, India

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[May -2009 - May 2011]

Key Coursework: Algorithms, Databases, Networking, Data Structures

Project

Highlighted Project: PDF-Trained LLM (Language Model on Custom PDFs) [Jan 2025 - May 2025]

Description:

url: <https://github.com/mukund7296/pdf-trained-LLM>

Developed a Python-based system to train a lightweight LLM on custom PDF documents. The system processes, embeds and enables querying of All PDF content using document embeddings and interactive chat.

Key Features:

- Converts PDFs to text and splits into chunks
- Trains LLM on PDF content (--train)
- Generates embeddings (--create-embeddings)
- Enables chat and Q & A on PDF data (--chat, --query)
- Fully configurable (model, chunk size, training params)
- Modular CLI-based workflow

Example : Text → Tokenizer [IDs, IDs] → Neural Network [Content IDs] → Output [Prediction / Embedding / Response]

Certifications / LinkedIn Learning / Courses

• ChatGPT Masters: AI Prompt Engineering – 16 Hours course (2023)

• Machine Learning: Generative AI, Data Analysis with Pandas

Achievements & Posts : <https://www.linkedin.com/in/mukund-techlead/>