

Udith Narayan

AI Engineer | Machine Learning & Automation

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SUMMARY

AI Engineer with 3 years of experience designing and deploying **AI-driven automation solutions**. Skilled in **Python**, **FastAPI**, **AWS**, and modern **NLP frameworks** to build scalable and efficient systems. Experienced in developing **LLM-integrated products** that optimize **data workflows**, reduce manual tasks, and deliver **measurable business value**.

PROFESSIONAL EXPERIENCE

OneITCorp — AI Engineer | Lowell, MA | Jul 2024 – Present

- Designed and implemented an **AI-Powered Document Processing Platform** using **FastAPI**, **LangChain**, and **OpenAI API** to automate extraction and classification of unstructured data.
- Integrated **Hugging Face Transformers** and **spaCy** for text analytics, achieving **95%+ accuracy** in information retrieval.
- Managed deployment pipelines on **AWS EC2**, **S3**, and **Lambda**, monitored with **CloudWatch** and containerized via **Docker** and **GitHub Actions**.
- Developed lightweight internal dashboards using **Angular** + **TypeScript** to visualize document processing metrics.
- Built internal **APIs with FastAPI and PostgreSQL** for microservice integration, enabling scalable automation for clients.

University of Massachusetts Lowell — Graduate Teaching Assistant / Grader | Lowell, MA | Sep 2023 – Dec 2023

- Graded programming assignments and exams for 30+ students in **Data Structures** and **Algorithms**, with emphasis on **C++** implementation and logic clarity.
- Conducted weekly **help sessions** and office hours, assisting students with **debugging**, **DSA concepts**, and problem-solving techniques.
- Collaborated with faculty to create exams and assignments combining coding tasks with **algorithmic reasoning**.

HP Inc. — Cloud Automation Engineer | Bangalore, India | Jul 2021 – Jul 2022

- Developed **Python automation scripts** using **Pandas**, **Requests**, and **REST APIs** to manage and monitor 5,000+ enterprise devices.
- Built **CI/CD pipelines** for testing and deployment; collaborated via **Jira** and **Agile** sprints to streamline release cycles. Integrated solutions with **HP's Device Intelligence Platform** to improve analytics and uptime metrics.
- Used **Postman** and **Docker** for testing, validation, and environment consistency across deployments.

Inbredia Technologies Pvt Ltd — Software Engineering Intern | Bangalore, India | Jun 2020 – Jun 2021

- Contributed to the development of a client-matching platform using **Java**, **HTML**, and **Firebase** for real-time professional connections.
- Implemented **Firebase Authentication**, caching, and API integrations that enhanced app responsiveness by 35%.
- Participated in **Agile development** cycles using **Trello** and **Git**, supporting **QA** and feature iteration for MVP deployment.

EDUCATION

University of Massachusetts Lowell — M.S. in Computer Science | Sep 2022 - May 2024

Presidency University, Bangalore — B.Tech in Computer Science | Jun 2017 - Jun 2021

PROJECTS

AI Job Assistant Web App — Developed an LLM-powered job-matching platform using **FastAPI**, **React** + **TypeScript**, and **OpenAI API** to intelligently pair candidates with roles; containerized with **Docker** and deployed via **AWS**.

ChefConnect (Capstone Project) — Created a mobile app in **Android Studio (Java/XML)** with **Firebase** backend to connect users with local chefs; implemented real-time updates and won **Best Capstone Project award**.

NER for Digital Health — Trained a **SpaCy** + **TensorFlow NER model** for **clinical entity extraction**, achieving **95% F1-score**. Optimized tokenization and custom entity rules for healthcare texts.

IoT Pothole Prediction System — Designed an **ML pipeline** with scikit-learn and NumPy to analyze road sensor data for pothole prediction with 85% accuracy.

SKILLS

Programming: Python, JavaScript, TypeScript, Java, SQL, HTML, CSS

Frameworks, AI & NLP: FastAPI, LangChain, TensorFlow, PyTorch, React, Angular, Node.js, scikit-learn, spaCy, Hugging Face, Transformers, Streamlit, Prompt Engineering, Reinforcement Learning

Cloud & DevOps: AWS (EC2, S3, Lambda, API Gateway, CloudWatch), Docker, GitHub Actions, Firebase, Google Cloud

Databases: PostgreSQL, MongoDB, DynamoDB, MySQL

Analytics & Tools: Pandas, NumPy, Power BI, Matplotlib, Excel, Jira, Postman, REST APIs, CI/CD Pipelines, Linux, Git

CERTIFICATIONS

- AWS Academy Cloud Architecting & Foundations Graduate
- PCEP – Certified Python Programmer
- Data Ninja Certification
- MS Azure Fundamentals