

Yukta Piyush Shah

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EDUCATION

University of Texas at Dallas, Texas Master's in Computer Science	Aug 2024 – May 2026
<i>Relevant Coursework: Computer Networks, DBMS, Algorithms, Operating System, Artificial Intelligence</i>	CGPA: 3.5
Sardar Vallabhbhai National Institute Of Technology Bachelor's in Computer Engineering	Jul 2018 – Jul 2022
<i>Relevant Coursework: Software Engineering, IoT Security, Data Structures, Machine Learning, Cloud Computing</i>	CGPA: 3.6

TECHNICAL SKILLS

Languages	: Python, Javascript, Java, Typescript, SQL
Frameworks	: Django, Angular, SpringBoot, ReactJS, NodeJS, ExpressJS, PyTorch, TailwindCSS
Databases	: MySQL, PostgreSQL, DynamoDB, MongoDB, Hazelcast, SybaseDB, Neo4j
Cloud & DevOps	: Apache Kafka, PySpark, Jenkins, Docker, Podman, Kubernetes
Certifications	: Microsoft Certified: Azure Fundamentals (AZ-900), Google Cybersecurity Professional Certificate

PROFESSIONAL EXPERIENCE

Union Bank of Switzerland (UBS) Software Engineer	July 2022 – July 2024
<i>Technologies Used: Apache Kafka, PySpark, FastAPI Microservices, Grafana, SQL, Kubernetes</i>	<i>Pune, India</i>

- Worked in a cross-functional team of 11 to design and deploy **ETL pipelines** processing **10M+ records** across **600+ business scenarios**, reducing analysis time by **40%**.
- Migrated batch-driven pipelines to **event-driven architecture** with **Apache Kafka**, reducing data latency from hours to near real-time and enabling processing of **10M+ events/day**.
- Developed **FastAPI microservices** to replace monolithic services, reducing backend latency by **30%**.
- Delivered **real-time monitoring dashboards** with **Grafana** and **Prometheus**, increasing observability accuracy by **30%**.
- Resolved **100+ vulnerabilities** and performed **SSL upgrades** across **10+ production clusters**, to strengthen platform security.

Credit Suisse Technology Analyst Intern	May 2021 – July 2021
<i>Technologies Used: Python, RASA, NLP, Shell Scripting, ServiceNow</i>	<i>Pune, India</i>

- Designed training datasets, intents, and dialogue flows, gaining hands-on experience in **natural language understanding (NLU)** and **dialogue management**, foundational concepts for LLM-based assistants.
- Built and deployed an **AI-powered conversational assistant** using **RASA**, reducing manual intervention by **40%** and improving response times for production support queries.
- Automated **ServiceNow workflows** with **Python scripting**, reducing incident and change request processing time by **40%**.

Tread Binary Technologies Pvt. Ltd. Python Developer Intern	Dec 2020 – Mar 2021
<i>Technologies Used: Django REST Framework, Angular 9, Celery, RabbitMQ, MongoDB, JWT</i>	<i>Mumbai, India</i>

- Developed secure backend APIs with **Django REST Framework**, integrated **Celery & RabbitMQ** for asynchronous tasks, and enforced **JWT authentication**, aligning with healthcare-grade security practices.
- Designed an **Angular** frontend, improving workflow efficiency by **30%** and reducing backend response time by **20%**.
- Pioneered a high-efficiency **mock data creation platform** using **Django REST Framework** and **Angular 9** unified with **MongoDB** for real-time analytics, delivering a **70% reduction** in development time and a **25% increase** in data accuracy.

ACADEMIC PROJECTS

GraphTalk (Application) LangChain, LangGraph, OpenAI, Streamlit, Python, Docker, LangFuse
<ul style="list-style-type: none">• Developed a conversational AI assistant using LangChain and LangGraph, enabling multi-turn dialogue and context-aware responses and integrated OpenAI GPT for natural language understanding, allowing the assistant to parse user queries and generate intelligent responses.• Built an interactive web interface with Streamlit and implemented monitoring and debugging workflows using LangFuse
LitLens (Application) Python, OpenAI API, Neo4j, Pinecone, Flask, Streamlit, Machine Learning, AI
<ul style="list-style-type: none">• Built an AI-powered semantic book recommendation system using OpenAI embeddings, Pinecone, and a knowledge graph, boosting suggestion accuracy by 40%.• Developed a real-time interactive UI with Streamlit simulating a reader's dashboard for personalized book recommendations.• Indexed 20,000+ books in the knowledge graph, enabling fast semantic search with 60% lower recommendation latency.
React-Notes-App (Application) React, TailwindCSS, Context API, Netlify
<ul style="list-style-type: none">• Built a note-taking application enabling efficient note creation, management, and organization with features such as pinned, starred, archived, and permanently deletable notes.

LEADERSHIP & ACHIEVEMENTS

- **Smart India Hackathon 2020 Winner:** Won the Best Project award for **Cyber Ally**, a cybercrime prevention application developed for **MHRD, India**.
- **ASEAN India Hackathon 2021 Winner:** Won the ASEAN India Hackathon by collaborating with an **international team** to develop an AI-powered prototype using **satellite imagery** to optimize Traffic Management in Coastal Regions.
- **Student Assistant, UT Dallas Parking & Transportation:** Supported campus operations, streamlining parking and transportation services and improving efficiency for over **5,000 students and staff**.