

# SUKRUTH MOTHAKAPALLY

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## Work Experience

### AI Software Engineer

Feb 2025 - Present

[PredictaBio Innovations](#), Brighton, MA (Python, REST APIs, Neo4j, Azure)

- Founding team **lead**, owning backend **product development** for a protein synthesis **startup**; Architecting multi-agent AI microservices, automated data pipelines, and graph + vector DBs for **ML**-driven predictive modeling and **POCs**.

### Graduate Teaching Assistant

Jan 2023 - Dec 2024

[Northeastern University](#), Boston, MA (Python, Java, Data Structures, OOP)

- Created and graded Data Structures and Algorithms assessments for **40+** students, including **Agile** and **SDLC** best practices.

### AI Software Engineer

Jan 2024 - Aug 2024

[PipeIQ.ai](#), Palo Alto, CA (Python, FastAPI, LLMs, AWS, SQL, React, Node.js)

- Member of a **startup's founding** engineering team, taking **ownership** of multiple microservices using Python and Node.js, leveraging RESTful APIs and AWS (Lambda, DynamoDB, S3), accelerating **MVP** launch by a **quarter**.
- Developed a React/Next.js/TypeScript UI integrating auth, content APIs, and Stripe payments, driving **40%** engagement growth.
- Designed database schemas; built a web-scraping tool; Created POCs with **design architectures** for new product features.
- Engineered a multi-agent **AI Copilot** with custom fine-tuned LLMs to automate marketing workflows, driving **revenue**.
- Led **migration** of monolithic backend to **scalable** microservices architecture using Docker, Terraform, and Ansible.

### Systems Engineer

Dec 2020 - June 2022

[Infosys](#) ([Intel](#)), Bangalore, India (Python, C++, SQL, CI/CD)

- Developed Intel **driver** deployment solutions in C++ on Linux, leveraging **automation tools** and configuration management.
- Built automated Python **testing frameworks** for SSD firmware on Linux, boosting system performance by **15%**.
- Re-engineered driver deployment process with Python and Shell scripting, reducing update time by **30%** for **1M+ users**.
- Optimized **CI/CD pipelines** with Jenkins and Git, improving code quality in driver deployment workflows.

### Full-Stack Developer Intern

Feb 2020 - Mar 2020

[Infosys](#), Mysore, India (JavaScript, MERN, Agile)

- Collaborated on backend development using Node.js, Express.js, and MongoDB for an employee **skills analysis platform**.
- Developed React components and integrated JavaScript for **real-time** data visualization on the platform.

### Software Developer Intern

Jul 2018 - Aug 2018

[Bosch](#), Bangalore, India (Python, Node.js, REST, AWS)

- Contributed to Python and Node.js backend services for a **shipment tracking app**, integrating RESTful APIs with **30+** endpoints.
- Optimized SQL/NoSQL queries, improving shipment data processing by **30%**, and deployed a Dockerized app on AWS.

## Personal Projects

[Personalized AI Job Tracker – Full-Stack App](#) (Python, FastAPI, JS, Postgres, AWS, CI/CD, Docker, LLM)

- Developed a **multi-agent AI Chrome extension** to automate job tracking, deployed on AWS with Docker and CI/CD.

[Cloud Native Web App with Scalable Architecture](#) (AWS, Python, Flask, GitHub Actions, Terraform, Packer)

- Built a Python/Flask REST API on AWS with load balancing and **auto scaling**, and CI/CD via GitHub Actions and Terraform.

[Task Prioritization App with Cloud Deployment](#) (React.js, HTML, CSS, Firebase, AWS)

- Built a React.js and Tailwind CSS **productivity app**, deployed on AWS EC2, reducing task delays by **30%**.
- Developed a **task scheduler** with Interval Scheduling, Priority Queues, and Firebase, saving **20%** time for **50+ users**.

[AI-based Stack Overflow Full-Stack App](#) (Python, LLM, Airflow, Docker, FastAPI, CI/CD, GCP)

- Led a team of **3** to build a Dockerized full-stack app integrating multi-AI agents into **Stack Overflow**, deployed on GCP.

## Technical Skills

- |                                |   |
|--------------------------------|---|
| • <b>Programming</b>           | - Python, Java, JavaScript, TypeScript, C++   |
| • <b>APIs   Architectures</b>  | - RESTful APIs, GraphQL, JWT, Microservices, SOA, Serverless, MVC, System Design    |
| • <b>Backend Frameworks</b>    | - Flask, FastAPI, Django, Node.js, Express.js, Spring Boot                          |
| • <b>Frontend Technologies</b> | - React, Redux, Next.js, Angular.js, HTML, CSS, Bootstrap, SASS/SCSS                |
| • <b>Databases</b>             | - SQL (PostgreSQL, MySQL, SQL Server), NoSQL (MongoDB, Redis, Neo4j), Elasticsearch |
| • <b>Cloud Computing</b>       | - AWS (EC2, S3, RDS, IAM, SQS, Lambda, ECS), GCP (CloudSQL, GCS, Pub/Sub), Azure    |
| • <b>Devops   CI/CD</b>        | - Git, GitHub, GitHub Actions, Jenkins, Docker, Terraform, packer, Kubernetes.      |

## Education

[Northeastern University](#), Boston, MA

Dec 2024

**Master of Science** in Computer Software Engineering

3.8 / 4.0

**Relevant Courses:** Data Structures and Algorithms in Python and Java, Cloud Computing, Big Data, Parallel Computing.

[Visvesvaraya Technological University](#), Bangalore, India

Sep 2020

**Bachelor of Engineering** in Computer Science and Engineering

3.0 / 4.0