

Aastha Mahindra

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PROFESSIONAL SUMMARY

Backend Software Engineer with strong expertise in API development, cloud computing, and scalable backend systems. Skilled in backend development using Python, JavaScript, Node.js, Fastify, and GraphQL. Adept in Agile methodologies, RESTful services, database management (MongoDB, PostgreSQL, MySQL), and Internet of Things (IoT) solutions. Proven track record in improving performance, optimizing databases, and implementing caching strategies for climate technology and geospatial applications.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript

Backend Frameworks/Libraries: Node.js, Fastify, Starlette, Express

API Technologies: RESTful APIs, GraphQL, SDK development

Databases: MongoDB, PostgreSQL, MySQL, Redis (caching)

Tools & Platforms: VS Code, Postman, Git, GitHub, CI/CD, Docker

Methodologies: Agile, Scrum, TDD (Test-Driven Development)

Additional Keywords: Cloud Computing, Scalable Architecture, IoT, Geospatial, Microservices

EXPERIENCE

Ambee Datair Technology Pvt. Ltd.

Software Engineer

July 2023 - Present

- Developed and maintained high-performance backend systems using **JavaScript**, **Python**, **Fastify**, and **GraphQL** for cloud-based climate technology solutions.
- Engineered scalable RESTful APIs and integrated databases such as **MongoDB** and **PostgreSQL**; implemented caching strategies with **Redis** to optimize application performance.
- Conducted a proof-of-concept for **H3 indexing** in geospatial applications, ensuring accurate location-based data processing.
- Collaborated within Agile teams to document technical specifications, perform code reviews, and implement unit and integration testing to ensure code quality and software reliability.

Software Engineer Intern

Jan 2023 - June 2023

- Contributed to the development of a climate technology **SDK**, enhancing API integration and data processing pipelines using **MongoDB** and various cloud services.
- Assisted the hardware team in designing and implementing a Python-based **MQTT pipeline** for real-time data transfer to devices, ensuring low latency and high reliability.
- Participated in an Agile development environment, contributing to technical documentation and a CI/CD process.

Engineers India Ltd.

Trainee

July 2022 - Aug 2022

- Designed and implemented a web application for project management using **React JS** for the user interface and **Spring Boot** with **Hibernate ORM** for the backend.
- Developed RESTful APIs and utilized **Postman** for API testing; managed data using **MySQL** to track projects, backlogs, and tasks in an Agile environment.

Indian Space Research Organisation - ISRO

Backend Developer Intern

May 2021 - Oct 2021

- Built backend services using **Geo-Django** for an agri-focused mobile application.
- Used **Postman** with CI & CD for web services to support software reuse and refactoring.

PROJECTS

Ambee App: Developed GraphQL APIs for real-time, historical, and forecast environmental data with caching and MongoDB.

ClimaChain – Climate Demand Forecasting: Built backend APIs in Node.js to forecast demand using weather and pollen data.

Environmental Alerts – Webhooks: Developed webhooks for real-time air quality/pollen alerts.

EDUCATION

Medi-Caps University, Indore

B. Tech in Computer Science and Engineering with specialization in Internet of Things

CGPA: 9.15

Aug 2019 – June 2023

Vatsalya Senior Secondary School, Vidisha

Senior Secondary School

Percentage: 80.8%

April 2018 - May 2019

Vatsalya Senior Secondary School, Vidisha

Higher Secondary School

CGPA: 10

April 2016 - April 2017