ASHAYKARGAONKAR@GMAIL.COM • 2245759833

ASHAY KARGAONKAR

Backend Software Engineer | Machine Learning Engineer | Cloud & API Specialist

PROFESSIONAL SUMMARY

Software Engineer with **4+ years** of experience, including 3+ years in backend development using **.NET**, **AWS**, and database systems like **DynamoDB** and **SQL**. Experienced in building scalable **REST APIs**, microservices, and cloud-native applications. Skilled in **TypeScript**, **React**, and **Python**, with a strong understanding of CI/CD, **unit testing**, and distributed systems. Proficient in data science and **machine learning**, with hands-on experience using **TensorFlow**, YOLO, **AWS SageMaker**, and CNNs for **image processing**, classification, and building AI-driven automation workflows.

EMPLOYMENT HISTORY

SOFTWARE ENGINEER   Mar 2022 - Jun 2025
Tata Consultancy Services : United Airlines   *Chicago, IL*

- Modernized legacy **.NET** systems by upgrading frameworks, refactoring backend logic using **MVC**, and migrating to **DynamoDB**, resulting in improved system performance and reduced maintenance.
- Designed and deployed scalable **RESTful APIs** using **C#** on AWS, created frontend components with **React.js**, and architected the overall system including **database design**, **Lambda** functions, and table backups.
- Built and maintained CI/CD pipelines using **Harness**, **GitHub**, and **Docker**; created **Postman** collections for testers, implemented unit testing for APIs, and worked in close coordination with QA to resolve bugs quickly and deliver features on time within **Agile** workflows.

DATA ANALYST INTERN   Jan 2021 - Mar 2021
Instahub LLC   *Remote*

- Analyzed **AWS RDS** sensor data with **MySQL** to identify patterns in room and device usage, uncovering key insights for operational optimization and **electricity conservation**.
- Developed predictive models in **R** and **Python** to improve energy efficiency, leveraging **statistical analysis** and **data visualization** (matplotlib, **Tableau**) to uncover usage trends and support strategic decisions, while designing dashboards for monitoring.

DATA SCIENTIST   Aug 2018 - Aug 2019
Ezeelo Consumer Service PVT LTD   *Nagpur, India*

- Analyzed customer data using **SQL** and **Python** to predict inventory needs and optimize global distribution through **clustering** and **predictive algorithms**. Developed product recommendation models that led to an **18% increase in sales**.
- Designed interactive **Tableau** dashboards to visualize product demand and highlight emerging trends, enabling faster and more informed business decisions.

PROJECTS

THINKMOVES (ONGOING)

- Developing **ThinkMoves** – a chess analysis platform that converts scanned scoresheets into accurate PGNs. Building a **.NET (C#)** backend with custom logic for extracting metadata, validating moves, and generating PGN files. Integrating layout classification, handwriting recognition, and image processing using **Azure OCR**, **TrOCR**, **ResNet**, **YOLO**, and **TensorFlow**. Using **Postman** for API testing and debugging.

  Designing a responsive frontend with **Next.js** and **React** to handle file uploads, user review, and PGN display. Deployment is set up with **Vercel (frontend)** and **AWS App Runner** (backend), with AWS services like **S3**, **Lambda**, **Cognito**, and **DynamoDB** managing authentication, storage, and processing workflows.

ASHAY'S PORTFOLIO

  A **vibe-coded** portfolio built with **Next.js**, **TypeScript**, **React**, and **WindSurf**, deployed on **Vercel**. Designed for **recruiters** and visitors to explore my work, connect, and interact via an **AI chatbot**. Regularly updated with new projects and features.

EDUCATION

MASTER OF SCIENCE IN COMPUTER SCIENCE   Sep 2019 - Aug 2021
DePaul University   *Chicago, IL*

BACHELOR OF COMPUTER ENGINEERING   Jun 2013 - Jun 2018
Pune University   *Pune, India*