

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

Tata Consultancy Services

Mar 2022 - Jun 2025

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

Instahub LLC

Jan 2021 - Mar 2021

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

Ezeelo Consumer Service PVT LTD

Aug 2018 - Aug 2019

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

DePaul University

Sep 2019 - Aug 2021

Chicago, IL

BACHELOR OF COMPUTER ENGINEERING

Pune University

Jun 2013 - Jun 2018

Pune, India