Dharmay Shah

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Summary

Tech-driven and purpose-led, I am a passionate Computer Science and Engineering student specializing in Artificial Intelligence and Machine Learning at Adani University. I always strive to apply my learnings, driven by a deep love for building and fixing systems. Highly observant and solution-oriented, I see challenges as opportunities to innovate.

With a solid foundation in full-stack development, cloud computing (AWS), and IoT integration, I've built and deployed scalable, real-world applications—from AI-powered mental wellness apps to IIoT-based monitoring systems. As the Captain of the AWS Cloud Club and an active member of AWS UG Ahmedabad, I champion innovation, community engagement, and continuous learning.

Through hands-on projects, hackathons, and research initiatives, I've consistently merged theory with practice across development technologies, cloud-native architectures, and AI workflows. My AWS certifications and ongoing specializations reflect a strong commitment to technical excellence.

I aspire to bridge intelligent systems with societal impact—harnessing AI, cloud, and edge technologies to develop solutions that are not only robust but also meaningful to the world

Education

- **B.Tech in Computer Science and Engineering, Major in AI & ML** *2022 – 2026 (Expected)*
  Adani University *CGPA: 7.6, Current GPA: 8.4*
- **Class XII (PCM)** *2022*
  Aakash Institute 67% — JEE Mains: 91.63 Percentile
- **Class X** *2020*
  Bhulka Vihar School, Surat 87%
- **C & C++ Programming** *2018*
  IIHT Surat

Experience

IIoT Project Developer *Eleics Design Private Limited, Gandhinagar*

- Developed an Industrial IoT system for real-time remote monitoring of energy and fluid consumption, integrating sensor data with AWS cloud services for processing and visualization.
- Engineered data acquisition from RS485-based flow/energy meters; Implemented data pipelines using AWS IoT Core (MQTT), SiteWise, S3, Lambda, and SES for alerts.

Skills

- **Programming Languages:** C, C++, Java, Python, SQL, HTML, CSS, JavaScript
- **Frameworks & Tools:** Node.js, Express.js, React, Selenium, Git ,Docker ,Kubernetes, JIRA, Agile
- **Artificial Intelligence:** Heuristic Search Techniques, Problem Reduction Search, Constraint Satisfaction Problems, Search Algorithms, Expert Systems, Nature-Inspired Optimization
- **Machine Learning:** Scikit-learn, Keras, Supervised Unsupervised Learning, Linear Regression, Logistic Regression, Decision Trees, Random Forest, SVM, KNN, Naive Bayes, Clustering (K-Means, Hierarchical), Ensemble Methods (Bagging, Boosting, Stacking), Cross-Validation, Feature Engineering, Model Evaluation, Hyperparameter Tuning, Pipeline Design , AutoML
- **Deep Learning:** TensorFlow, Keras, ANN, CNN, RNN, LSTM
- **Data & Visualization:** Power BI, Matplotlib, NumPy, Pandas, Seaborn
- **Cloud (AWS):**
  - **Compute:** EC2, ECS, EKS, Lambda
  - **Storage:** S3, EFS, EBS
  - **Database:** RDS, DynamoDB
  - **Network:** VPC, CloudFront, ELB, Route53
  - **IAM**
  - **AI/ML:** Lex, Q, SageMaker, Bedrock
  - **IoT:** IoT Core, IoT SiteWise
  - **Event-Driven:** EventBridge, SES, SQS, Step Functions
  - **Developer & Integration Tools:** CloudFormation, CodePipeline, CodeBuild, CodeDeploy
- **Core Competencies:** Data Structures, Algorithm Design, Operating Systems, Computer Networks, Theory of Computation, AI/ML/DL Model Development, Full-Stack Development, IoT Solutions, Cloud Architecture, Serverless Architecture, Event-Driven Architectures

Projects

- **MindMosaic – AI-Powered Mental Wellness App:** Built during HackSpire 2025, this mental health app uses a custom-trained ML model to assess users' emotional states and generate personalized wellness scores. Features include conversational AI, mood detection, weighted parameter analysis, and tailored recommendations for content like music, movies, and books.
- **IoT-Based Energy & Flow Monitoring with AWS:** Developed a scalable IIoT system using RS485-based sensors, AWS IoT Core, SiteWise, and Lambda. Enables real-time consumption monitoring, automated alerts (via SES), secure MQTT communication, and historical data analytics through S3. Future-ready with predictive ML integrations.
- **Comprehensive Timetable Management System:** Integrated scheduling platform using React frontend, Node.js/Express backend, and a Java-based intelligent scheduler. Supports class-faculty-course linkage, conflict detection, automated generation, and multi-departmental schedule export.
- **College Library Management System:** Full-stack system to manage book inventory, student transactions, due date notifications, and fine calculations. Built with React, Node.js, SQL; supports blocking of users with overdue returns and cron-based email automation.
- **Loan Management System with Moratorium:** Calculates EMIs with support for both flat rate and reducing balance interest methods. Features include moratorium period adjustments, maturity projections, and flexible repayment plans.
- **Fixed Deposit Management System with TDS Deduction:** Manages FD accounts with features like interest calculation (compound/simple), renewal options, TDS handling, and secure login. Designed for precise financial handling and re-investment logic.
- **Business Economy Flight Analytics Dashboard:** Built a comprehensive Power BI dashboard by merging business and economy airline datasets to analyze pricing trends, route popularity, and class-wise performance.Created custom DAX measures and calculated columns to normalize duration, compare cost per class, and generate dynamic KPIs.Delivered actionable insights across stop types, average flight durations, price differences, and flight distribution using multi-page visual storytelling.
- **WhatsApp GIF Bot (Fun Project):** Automated bot built using Selenium WebDriver that sends GIFs to WhatsApp groups. Includes keyword-based search, timed dispatch, and looped execution to simulate human-like chat behavior.

Certifications

- AWS Certified Cloud Practitioner (CLF-C02)
- AWS Academy Graduate - Cloud Foundations
- AWS Academy Graduate - Machine Learning Foundations
- AWS Academy Graduate - Cloud Architecting
- AWS Academy Graduate - Cloud Developing

Currently Pursuing: AWS Certified Solutions Architect - Associate, AWS Certified Developer - Associate

Research

- AI-Based Energy Efficient and Placement Optimized Algorithms for Next-Generation Wireless Technology
- Impact of Data Quality on Machine Learning Model Training

Community Engagement & Leadership

- Captain: AWS Cloud Club at Adani University
- Member: AWS UG Ahmedabad

Events & Workshops

- **The Advancement of Gen AI:** Explored fine-tuning foundation models, Retrieval Augmented Generation (RAG), and deploying agentic AI for task automation and intelligent workflows.
- **HackSpire 2025 – 24-Hour Hackathon:** Led Team 'Imposters' to develop MindMosaic. Learned agile collaboration, effective time management, and rapid prototyping in a high-pressure environment guided by industry mentors.
- **AWS Community Day Ahmedabad 2025:** Volunteered at the Builder Fair showcasing an IIoT-based energy and flow monitoring solution. Interacted with cloud professionals and received feedback on deployment strategies and industrial use cases.
- **AWS Community Day Vadodara 2024:** Attended expert sessions on GenAI, serverless computing, AWS Amplify, and cloud security. Strengthened practical knowledge of scalable, event-driven cloud-native architecture.
- **AWS Student Community Day CHARUSAT 2024:** Engaged with AWS community leaders on topics like AI ethics, branding, and cloud architecture. Gained exposure to real-world applications and networking with student innovators.

– **Jen Looper's Visit to Adani University:** Learned about AWS Leadership Principles, cloud career journeys, and strategies for creating impactful cloud communities. Motivated to strengthen developer advocacy and peer learning culture.