Atharva Chaudhari

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EDUCATION

University of Illinois Urbana-Champaign (UIUC) — GPA: 4/4
MS in Information Management (2024-2026)

Vishwakarma Institute of Technology, Pune (VIT) — GPA: 3.5/4
B.Tech in Electronics and Telecommunication (2019-2023)

SKILLS

Programming Languages: HTML, CSS, JavaScript, x86 Assembly Language, C, C++, Python
Frameworks and Runtimes: Node.js, Express.js, React.js, Embedded Java Script (EJS)
Databases: DynamoDB, MongoDB, MySQL
Packages: Data Structures, OOP's, OpenCV, Neural Networks, Pytorch, LLM
Computer Fundamentals: Operating Systems, Database Management Systems, Computer Networking
Data Analysis and Visualization Tools: Tableau, Power BI
AWS Certification: EC2, S3, RDS, VPC, IAM, ELB, Auto Scaling, CloudWatch, Route 53, CloudFormation, EBS, Lambda (Link)
System Design and Architecture: microservices, RESTful APIs, load balancing, caching, sharding, fault-tolerance

EXPERIENCE

Center of Health Informatics, (UIUC) — Champaign, USA
Graduate Research Assistant — July 2025 to Present

- Developed an AI-driven pipeline for detecting misinformation in short-form videos using **Whisper Transcription** and **LLM**
- Integrated **OpenAI** and **Azure** models with automatic fallbacks to ensure **> 99%** uptime
- Built a **CI/CD**-enabled pipeline for video chunking with adaptive concurrent batching
- Created a **JSON**-based prompt parser to standardize multi-model inputs/outputs

Adarsh College of Computer and Management — Akola, India
Lecturer — June 2023 to May 2024

- Delivered in-depth lectures on **C programming**, **Data Structures**, **Operating Systems**, and **Neural Networks**, fostering a strong mastery of core concepts
- Collaborated with the School Improvement Committee to design and implement initiatives that boosted academic performance and student engagement
- Leveraged advanced **Excel** techniques to analyze 200+ student records, identifying performance trends and tailoring personalized support strategies

PROJECTS

University Campus-Wide Lost & Found Service (Link) — Jan 2025 to June 2025

- Developed a responsive **React** SPA with React Router, Axios, and custom **CSS** for user reporting and item browsing
- Built a serverless **Node.js** backend (Serverless Framework) on **AWS Lambda** and **API Gateway**
- Secured endpoints with bcryptjs-hashed passwords and **JWT** authentication
- Persisted records in **DynamoDB** and managed image uploads in **AWS S3** via presigned URLs
- Implemented admin-triggered email alerts using **AWS SNS** with automatic signup subscriptions
- Enforced least-privilege **IAM** roles for S3, DynamoDB, and SNS access

MediHealth – Smart Appointment & Notification System (Link) — Aug 2024 to Dec 2024

- React SPA for signing up, browsing doctors, and booking/canceling slots (Context API, Axios, Socket.IO)
- **Node.js**, **Express REST API** with **JWT auth**, and emergency-delay scheduling
- **MongoDB** with Mongoose schemas for users, doctors, and appointments
- **Socket.IO** server broadcasts new openings and shifted appointments to all clients

Skin Cancer Classification and Detection using VGG-19 and DenseNet (Link) — Jan 2023 to May 2023

- Built a real-time skin cancer detector using **VGG-19** and **DenseNet**, achieving **97.29%** and **89.49%** accuracy on HAM10000 and ISIC-2019 datasets
- Enhanced performance with data augmentation, **BCDU-Net** lesion segmentation, and transfer learning for precise feature extraction
- Deployed as a web app delivering **97.42%** precision and **97%** recall, outperforming existing approaches
- **Publication:** Presented paper at International Conference on Computational Intelligence, Network and Security (IEEE) (22-23 Dec 2023) (Link)

Household Furniture Detection for Visually Impaired People (Link) — Aug 2021 to Dec 2021

- Built a SIFT-based pipeline and trained SVM, Decision Tree, RF, and KNN models to classify household furniture for visually impaired users
- Optimized model performance, achieving a peak accuracy of 77.64% with a Decision Tree classifier
- **Publication:** Presented paper at the 5th International Conference on Intelligent Computing (IEEE) (March 25-26, 2022) (Link)