

Khushi Naik

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Education

University of Southern California

Master of Science in Computer Science

Los Angeles, CA

Aug 2023 - May 2025

Coursework: Analysis of Algorithms, Game Development, Foundations of AI, ML, DL, NLP, Advanced CV

Pandit Deendayal Energy University

Gandhinagar, Gujarat

Bachelor of Technology in Information and Communication Technology

Aug 2019 - May 2023

Coursework: DSA, Database Management System, Operating System, OOCp, Cloud Architecture, Big Data Analytics and Computing, AI, ML, CV, NLP

Technical Skills

Languages: Python, Java, HTML, JavaScript, SQL, C, C++, C#, Swift, Solidity, TypeScript, Go, R

Technologies: CSS, React, React Native, Node.js, Express, Next.js, Redux, Django, Flask, Angular, Bootstrap, Material-UI, Linux

Databases & Cloud: AWS, Git, Docker, Kubernetes, CI/CD, MySQL, MongoDB, PostgreSQL, Hadoop, Redis, GCP

AI & ML: TensorFlow, PyTorch, Scikit-Learn, SparkML, PySpark, NumPy, Pandas, OpenAI, LangChain, OpenCV, Jax

Work Experience

Baum Family Maker Space

Software Developer Intern

Los Angeles, CA

Sep 2024 - Present

- Led a team of 5 in designing and developing **AUSCAS v2.0**, utilizing **UML** workflows, **React.js** for the frontend, **Node.js** for the backend, **OAuth** for authentication, and **MySQL** for database management, reducing student wait time by **40%**
- Engineering a real-time **AR sandbox system** using the **Orbbec SDK in Python**, processing depth maps with **millimeter-level accuracy**, benefiting 100+ architecture students in hands-on learning and project development
- Architected a **web platform**, defining **UI/UX frameworks** to enhance user experience and operational efficiency

Avalon Aerospace

Machine Learning Engineer

Compton, CA

May 2024 - Aug 2024

- Led the development of a **real-time** defect detection system using **Tensorflow**, **Detection Transformer** and **Template Matching techniques**, improving accuracy by **95%** in CNC manufacturing
- Deployed a **YOLOv8**-based human detection system on a **Raspberry Pi 5**, integrating a real-time alarm that instantly halts the robot, reducing safety incidents by **35%**
- Developed a burr detection algorithm using a **Vision Transformer** on a **Coral Dev Board**, creating a custom dataset for training
- Built a **C# WinForms** application for annotation refinement, integrating **OpenCV**, **SQLite**, and **.NET 6**, optimizing image processing efficiency, reducing labor time by **65%**

Barodaweb

Full-Stack Web Developer

Vadodara, Gujarat

Dec 2022 - May 2023

- Architected scalable **APIs** in **Node.js** and integrated with **MongoDB** and **Google Cloud (GCP)** to support a multi-tenant virtual ad management platform used by diverse stakeholders
- Implemented a chatbot using **LLM(OpenAI GPT API)** to assist clients with ad performance queries, reducing response time by **40%**
- Automated reporting workflows (**Python + Power BI**), enabling real-time analytics and improving decision-making efficiency by **20%**

TalentServe

AI/ML Engineer Intern

Mumbai, Maharashtra

May 2022 - Jul 2022

- Built an **AI**-powered resume screening system with **NLP** and **SVM** using **Scikit-Learn** and optimized classification models for high-volume recruitment, improving accuracy and efficiency
- Developed a web application using **React.js**, **Typescript**, **Node.js**, and **Express.js** for backend processing, efficiently handling **10,000+** resumes while maintaining a **98% uptime**

Projects

Game Development

Aug 2024 - Dec 2024

- Developed **Unity** games with physics interactions and implemented gameplay using **C#**, **DOTS**, optimizing with **GPU instancing**
- Integrated **Git** for **version control**, **Unity Cloud Build** for **CI/CD**, and managed assets with **Addressables**

Scalable Serverless Web App on AWS

Jan 2024 - May 2024

- Deployed a fully **serverless web application** using **AWS Lambda**, **API Gateway**, and **DynamoDB** for a high-performance backend
- Configured **AWS S3** and **CloudFront** for fast, secure, and scalable frontend hosting, reducing latency by **40%**

Automated Drowsiness Detection for Driver Safety

May 2023 - Aug 2023

- Developed a **deep learning-based** drowsiness detection system using **CNN** and **MLP**, achieving an accuracy of 86% with **MLP**
- Built a **web application** for real-time driver monitoring using **Flask**, **OpenCV**, and **TensorFlow**, leveraging cv to detect drowsiness

Publications

Automated Drowsiness Detection using Machine Intelligence Techniques ([IEEE 2023](#))

Automated Drowsiness Detection for Driver Safety: A Deep Learning-based Approach ([IEEE 2023](#))