Kirti Palve

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EDUCATION

CARNEGIE MELLON UNIVERSITY   Pittsburgh, PA
Master of Information Systems Management   Expected December 2026
Cumulative GPA: 3.5/4.0
Relevant Coursework: OOP in Java, Cloud Computing, Database Management Systems, Distributed Systems

PUNE INSTITUTE OF COMPUTER TECHNOLOGY   Pune, India
Bachelor of Engineering in Computer Engineering   Jul 2019 - Jul 2023
Cumulative GPA: 4.0/4.0
Relevant Coursework: Operating Systems, Data Structures and Algorithms, Computer Networks

SKILLS

Technical Skills: Python, Java, C++, JavaScript, TypeScript, NodeJS, RESTful APIs, Spring Boot, MCP, Microservices, Spring MVC, MySQL, ExpressJS, Agile development, Azure, React, GIT CLI, GitHub, AWS, C#, XCode, Git

WORK EXPERIENCE

ADOBE SYSTEMS   Bangalore, India
Software Development Engineer 2   January 2025 – July 2025
- Led end-to-end development of GLaaS Verify; integrated ElevenLabs AI automation via MCP to streamline QA workflows, cutting validation time and improving translation accuracy for 100+ products
- Designed and developed a microservice for Adobe's video translation pipeline, leveraging AI, enabling automated dubbing across more than 10 languages, and reducing manual translation time
- Implemented CI/CD pipelines automating deployment of microservices, accelerating release cycles by 40%

Software Development Engineer   July 2023 – December 2024
- Owned end-to-end development of scalable frontend features for GLaaS using React and TypeScript, Adobe's globalization platform powering 100+ localized products
- Led accessibility improvements on Adobe Express, integrating WCAG-compliant UI enhancements, increasing accessibility audit scores by 42%, benefiting millions of users with visual impairments and autism

Product Intern   May 2022 – July 2022
- Redesigned Photoshop's legacy "Guides" feature in Objective-C, integrating Adobe Sensei ML for intelligent object detection improving design precision and reducing manual alignment effort
- Optimized ML-assisted snapping behaviour by refining detection thresholds and heuristics for smoother user interactions.

PROJECTS

INTERACTIVE AI RHYTHM DETECTOR [Link]   March 2025
- Built a real-time rhythm detector in Python, extracting tempo and beat features from audio streams with high accuracy and low latency using Librosa
- Designed scalable signal processing pipelines for future integration with music recommendation

MULTIMODAL LIP SYNC [Link]   December 2025
- Built an AI lip-sync system using **PyTorch**, **Wav2Lip**, **OpenCV**, and **FFmpeg**, generating realistic mouth movements from audio
- Designed **scalable infrastructure** on **Modal** with **asynchronous GPU inference**, **FastAPI endpoints**, **job queuing**, and **Kafka-based pipeline orchestration** for robust demo deployment

SMART HELMET SYSTEM | IoT Safety Device   July 2023
- Developed a Unix-based OS in C++ for smart helmets, handling real-time sensor data to detect unsafe conditions; Earned a patent from the Government of India