

Kenil Patel

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EDUCATION

Master of Applied Computer Science

Dalhousie University, Halifax, NS

September 2023 – Present

GPA: 4.09/4.3

B.Tech in Information & Communication Technology

Pandit Deendayal Energy University, Gandhinagar, Gujarat

August 2018 – May 2022

GPA: 3.91/4.0

TECHNICAL SKILLS

Languages : Python, C, C++, SQL, JavaScript, TypeScript, Java, HTML, JSON, CSS
Framework & Library : Flask, Django, ReactJS, NextJS, Node.js, MaterialUI, Tailwind CSS, Redux Toolkit, Zustand, OpenCV, PyTorch, TensorFlow, Scikit, Sklearn, Matplotlib, OpenVino
Databases : MySQL, MongoDB, DynamoDB, Amazon S3 bucket
Tools & Technologies: Amazon Web Services (AWS), Google Cloud Platform (GCP), Azure, Docker, Kubernetes, Postman, Git, Jira, IntelliJ, Netlify, Scrum, Pycharm, Visual Studio Code
Concepts : Agile Methodology, DevOps, Software Development Life Cycle, CI/CD Pipeline, RESTful APIs

CERTIFICATIONS

- AWS Certified Solution Architect - Associate

EXPERIENCE

Full Stack Developer (Part-Time) | Vergo.ai | Canada

November 2023 – Present

- Led the planning, wireframing, and requirements gathering for a platform developed with **Flask microservices** for backend and **Next.js** for frontend, while engineering scalable, secure **RESTful APIs**, databases, and performance enhancements.
- Deployed advanced **deep learning** pose estimation model for human posture detection, enhancing accuracy by **20%**.
- Automated Rapid Entire Body Assessment reporting via **Python**, analyzing posture data and movement sequences to pinpoint high-risk positions, delivering ergonomic insights that reduced workplace musculoskeletal injuries.
- Optimized **AWS infrastructure** leveraging RDS for databases, SQS for message queuing, SageMaker for model training/deployment, and EC2 instances for computing, **reducing costs and boosting deep learning performance**.
- Reported weekly to CEO on project status and sprint planning within an **Agile methodology**, ensuring clear and good communication.

Computer Vision Engineer | Aivid Techvision Pvt. Ltd. | India

October 2022 - August 2023

- Engineered a suite of **Deep Learning Models** to power AIVIDeye, achieving a **33.33%** reduction in processing time.
- Delivered **machine vision bots** for automated defect detection on wire manufacturing lines, configuring high-resolution cameras to identify flaws and seamlessly integrate with production workflows for **real-time notifications**.
- Conducted extensive research on **GPU utilization** and leveraged **C++** for AIVID Bot execution to optimize CPU efficiency and inference speed by **40%**.
- Spearheaded **Proof of Concept (POC)** initiatives in **shoplifting detection**, fire and smoke recognition, and person re-identification, strategically advanced company objectives by bolstering surveillance technologies.

Computer Vision & Data Science Intern | Aivid Techvision Pvt. Ltd. | India

June 2021 - April 2022

- Created a **Machine Learning algorithm** utilizing time series data to forecast peak hours at retail stores; optimized staff scheduling and reduced customer wait times by **15%**.
- Modeled a cutting-edge anomaly detection algorithm for monitoring visitor foot traffic across **50+ retail locations**, increasing customer engagement and sales conversions.
- Designed a system that utilizes custom trained **deep learning model** to **detect Shutter Open-Close activity**, fortifying security and operational vigilance for shop owners; reduced break-ins by **95%**.

PROJECTS

Employee Verification System | Code: 📄

January 2024 – April 2024

- Developed a **cloud-based** Employee Verification System using **AWS Rekognition**, bolstering office security with **99.9%** accurate facial recognition technology.
- Engineered a tablet-based interface using **ReactJS** for rapid, on-site employee image capture and verification, effectively reducing entry delays.
- Implemented an email notification feature using **AWS SNS and Lambda functions** to automate HR notifications for successful verifications, improving attendance tracking accuracy.

Technology Used : ReactJS, Python, Rekognition, Lambda, DynamoDB, API Gateway, S3, SNS, EC2, Cloud Formation

ReFacto: Code More, Worry Less | Code: 📄

September 2023 – December 2023

- Published a GitHub application leveraging advanced **Large Language Model** for code analysis and refactoring to enhance code quality by **5-10%**.
- Built a **Django** backend to analyze commits in various languages, integrating with a **ReactJS and MaterialUI** frontend for optimal user experience and accessibility.
- Implemented **CI/CD pipelines** to streamline the development process, ensuring efficient testing, integration, and deployment of code changes.

Technology Used : ReactJS, Python, Django, MaterialUI, CI/CD