Hassan Abid Amin

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EDUCATION

Bachelor of Software Engineering (BESc.)   London, ON
University of Western Ontario   *Sept 2021 – Apr 2025*
- Dean's Honour List
- Relevant Coursework: Data Structures & Algorithms, Software Architecture, Testing, Databases, Web Development, Cloud Computing, Information Security, Machine Learning, AI, Game Design

EXPERIENCE

Helping Hands   Mississauga, ON
Software Developer   *Jun 2025 – Aug 2025*
- Implemented new features and fixed bugs in a Ruby on Rails backend and React-based frontend, improving functionality and enhancing user experience across desktop and mobile platforms.
- Conducted QA testing and resolved cross-browser compatibility issues, reducing defects and ensuring consistent performance across environments.
- Deployed updates and managed infrastructure with AWS, PostgreSQL, and NGINX, improving deployment efficiency and maintaining system stability.

urFace   London, ON
Software Developer   *Jan 2025 – Present*
- Developed a computer vision algorithm using OpenCV, Mediapipe, NumPy, and SciPy to detect facial features and generate detailed analytics, expanding application capabilities.
- Integrated TensorFlow-based skin-tone classification models to automate grading pipelines, cutting manual review time by approximately 40% and improving process efficiency.
- Built CI/CD pipelines to streamline deployments and improve release consistency across environments.

Summit SKS   Oakville, ON
Full Stack Developer Intern   *Apr 2023 – Dec 2023*
- Implemented end-to-end authentication flows using Firebase Authentication, React, and Google OAuth, streamlining the onboarding process for new users.
- Architected and maintained a Firestore database with optimized data models, while integrating RESTful APIs to deliver seamless, real-time synchronization across the platform.
- Partnered with developers and product managers in Agile ceremonies, contributing to sprint planning and daily stand-ups to drive iterative feature delivery and improve team velocity.

PROJECTS

AI Acne Detection System (GitHub) | YOLOv8, FastAPI, OpenCV, PyTorch, Computer Vision, Deep Learning
- Developed computer vision pipeline using YOLOv8 architecture with transfer learning and data augmentation.
- Built full-stack application with FastAPI and responsive frontend, featuring image preprocessing and detection.
- Implemented ML workflow with hyperparameter optimization and model evaluation using mAP metrics over 100 training epochs.

WE.AI (GitHub) | Next.js, Node.js, GCP, VertexAI
- Built an AI-powered Q&A tool using Next.js and VertexAI on GCP to provide accurate answers for Western University Engineering inquiries.
- Developed Python scrapers to automate academic data collection and deliver real-time insights.
- Designed REST APIs in Node.js/Express.js to support personalized recommendations.

coderesume.app (GitHub) | React, Next.js, Node.js
- Built a serverless backend to dynamically generate LaTeX-formatted resumes, reducing manual editing.
- Designed a responsive React UI enabling real-time customization of resume sections.
- Integrated PDF rendering and cloud storage for reliable, fast document delivery.

Facial Emotion Recognition (GitHub) | PyTorch, ResNet-50, TensorFlow
- Trained CNNs (ResNet-50, CBAM) on FER-2013 dataset for emotion classification, achieving 72% accuracy.
- Applied data augmentation to improve generalization and reduce overfitting.

TECHNICAL SKILLS

Languages: Java, JavaScript, TypeScript, Python, C, C++, SQL, HTML, CSS
Frameworks: React.js, Node.js, Ruby on Rails, Express.js, Redux, Next.js, TailwindCSS
Cloud & DevOps: Google Cloud Platform, AWS, Docker, Kubernetes, CI/CD, Linux
Databases: MongoDB, MySQL, Firebase, PostgreSQL
Tools: Git, Jira, Confluence, Figma, Postman