

Adit Dua

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TECHNICAL SKILLS

Languages: Python, JavaScript, HTML & CSS, R, React, Java, C, SQL, MatLab

Developer Tools: Git, Google Collab, VS Code, PyCharm, Eclipse, Google Cloud, Firebase

Libraries: NumPy, Pandas, Scikit-learn, TensorFlow, XGBoost, Matplotlib, OpenCV, SVM, Clustering, Regression, Classification, Seaborn, Keras, SciPy, Plotly, YOLO, PyTorch, Statsmodels

Data Visualization: Tableau, Plotly, Excel, PowerPoint

EDUCATION

Wilfrid Laurier University

Waterloo, ON

Honours Bachelor of Science in Computer Science, Co-op Program

Sep. 2023 – July 2027

- Current GPA: 10.60/12.00
- Received \$1250 in-course scholarship for maintaining the GPA over 10.50
- Faculty of Science: Dean's Honour Roll 2023-24

EXPERIENCE

Data Engineer

February 2025 – Present

HawkHacks

Waterloo, Ontario

- Developed and optimized data pipelines to extract and process large datasets from Firestore and Google Analytics, utilizing advanced data analytics techniques to ensure data accuracy, integrity and scalability aligned with performance metrics and operational KPIs.
- Implemented real-time data synchronization, ensuring that newly added sponsor-related data was instantly available for analysis, driving dynamic updates and actionable insights.
- Collaborated with cross-functional teams to integrate clean, categorized data into Notion, enabling efficient reporting, dashboard creation, and enhancing the data-driven decision-making process for internal and external stakeholders.

Research and Development Intern

May 2024 – August 2024

Logic Fruit Technologies

Gurgaon, India

- Developed and optimized advanced algorithms for object detection, lane detection and collision avoidance, leveraging machine learning frameworks to enhance real-time decision-making and improve vehicle automation.
- Implemented 2D/3D face recognition using TensorFlow Lite (TFLite) and cutting-edge AI techniques, driving system security and enabling secure, AI-powered user authentication for large-scale deployments.
- Integrated LiDAR and camera data for precise collision detection and adaptive lighting, enhancing environmental perception and increasing road safety through GPU-optimized, AI-driven real-time solutions.
- Collaborated with cross-functional teams, accelerating the development of scalable machine learning models, and prepared structured reports and presentations for stakeholder review, reflecting real-time analytical outcomes.

PROJECTS

HawkHacks Analytics | Python, JavaScript, Firestore, Google Analytics, Notion API

March 2025 – Present

- Developed a streamlined data pipeline to extract and preprocess sponsor-related data from Firestore and Google Analytics, ensuring data accuracy, organization and enabling trend analysis, insights generation for 2024 and 2025.
- Implemented real-time data synchronization with Firestore, automatically updating the dataset when new entries, such as schools, were added to the database.
- Leveraged the Notion API to create a comprehensive, easily accessible Notion database, facilitating sponsor data management, filtering, and export capabilities.

2D & 3D Face Recognition | Python, PyQt5, TFLite, Mediapipe, OpenCV, AI /ML

July 2024 – Sep. 2024

- Built a real-time facial analysis system using a webcam to perform 3D face detection (leveraging depth information) and 2D face recognition (based on image data) with Python, TFLite, Mediapipe, and OpenCV.
- Enabled users to capture multiple images of their face from different angles, improving system accuracy and adaptability for future face recognition tasks using OpenCV for image capture and storage.
- Designed an intuitive PyQt5 GUI for seamless switching between 3D detection and 2D recognition modes, allowing users to easily capture, save, and store images, while utilizing TFLite for optimizing model inference on devices.
- Applied statistical techniques and modeling approaches to analyze facial geometry data, highlighting real-time analytical decision-making and predictive inference.