Varun Anand

Co. Dublin, Ireland | vanand@tcd.ie | +353 894831889 | [Website](#) | [LinkedIn](#) | [GitHub](#)

SKILLS

Programming Languages: Java, Python, C++, SQL, JavaScript, HTML, CSS.
Machine Learning & AI: Predictive Analytics, Deep Learning (TensorFlow, spaCy), Pandas, scikit-learn.
Software Development: SDLC, Agile (Scrum), CI/CD, Problem Solving, Testing & Maintenance.
Cloud & DevOps: AWS (**Certified Cloud Practitioner**), Docker, Kubernetes, Git.
Database Systems: MySQL, PostgreSQL.
Frameworks & Tools: ReactJS, NodeJS, Spring Boot, Flask, Liferay DXP.

EDUCATION

Trinity College Dublin   **Dublin, Ireland**
B.A. Moderatorship Honors Bachelor's Degree in Computer Science   *Expected Graduation, May 2025*
- o   **Related Coursework:** Advanced Data Structures & Algorithms, Agile Software Development, Functional Programming, Machine Learning, Artificial Intelligence, Object-Oriented Programming, Data Analytics.

EXPERIENCE

Dell Technologies   **Dublin, Ireland**
Software Engineering Project [(GitHub Repository and Source Code)](#)   *Jan 2023 – May 2023*
- Engineered a **Machine Learning Named Entity Recognition (NER) Model** tuned to DELL data to recognize important entities within customer support textual logs such as person names, addresses, technical and non-technical issues.
- Leveraged open-source NER models **(SpaCy, Flair)**, advanced **NLP** techniques including **Deep Learning** and trained the model on proprietary DELL data to recognize key entities specific to DELL's customer service environment.
- Reduced manual entity identification time by **33%**, increasing the efficiency of DELL customer support.
- Analyzed **500+ Software Requirements** monthly and collaborated with other engineers within an **Agile Development Environment** to manage project workflow.

Liferay International   **Dublin, Ireland**
Software Engineering Project   *Jan 2024 – May 2024*
- Designed and developed a **Student Job Portal** using **HTML, CSS, SpringMVC, LiferayDXP and JavaScript** aimed at streamlining recruitment with dynamic profile matching and real time notifications.
- Led the **Front End Dev Team** and developed responsive UI/UX components and integrating features on Liferay DXP using **Javascript, CSS, HTML, ReactJS and SpringMVC** ensuring seamless user experience and project delivery.
- Mentored a team of five second-year students in best web development practices within a collaborative and **Agile Framework**, fostering a proactive learning environment.

PROJECTS

Dynamic Flight Pricing Engine for Ryanair [(GitHub Repository and Source Code)](#)   **Dublin, Ireland**
Developer | Python (Flask), React.js, PostgreSQL, scikit-learn, Chart.js, Docker, AWS (EC2 and RDS)   *Sep 2024 - Present*
- Designed and implemented a **Dynamic Pricing Engin**e to optimize Ryanair flight ticket prices in real-time, considering demand, booking trends, and competitor pricing.
- Built **RESTful APIs** using **Flask** to fetch and process historical data from **PostgreSQL** and simulate real-time booking.
- Developed predictive pricing models using **Linear Regression** and **Decision Trees** from scikit-learn, analyzing key features like days to departure, booking trends, competitor prices, and seasonal demand.
- Designed and deployed a **React.js** dashboard with interactive Chart.js visualizations to monitor various metrics.
- Deployed the application on **AWS** using EC2 and RDS, ensuring scalability and high availability.

Pedestrian Crossing Analysis System [(GitHub Repository and Source Code)](#)   **Dublin, Ireland**
Computer Vision Engineer | C++ & OpenCV   *Sep 2024 - Nov 2024*
- Developed a system to automatically analyze images of pedestrian crossings from a car's perspective, handling varying lighting and environmental conditions.
- Applied advanced **computer vision techniques**, including **region-based processing** and **edge detection**, to locate and evaluate pedestrian crossings in static images.
- Demonstrated expertise in **C++ Programming, image processing**, **algorithm evaluation**, and **OpenCV library usage**, achieving accurate results while adhering to strict performance and format guidelines.
- Tested performance across several datasets, providing performance metrics and analyzing robustness and failure cases.

CERTIFICATIONS

Amazon Web Services   **Dublin, Ireland**
AWS Certified Cloud Practitioner [(Credential Link)](#)   *Dec 2024 - Present*