



Skills

AI & Analytics

- Computer Vision
- Natural Language Processing
- Reinforcement Learning
- Deep Learning
- Data Mining
- Large-scale Data Pipelines

AI Tools

- TensorFlow/PyTorch/Caffe
- Keras
- Apache Spark/Hadoop
- OpenCV
- Scikit-Learn

Programming Languages

- Python
- Java
- R
- HTML/CSS (Bootstrap)
- C++/C
- MySQL/ MongoDB
- JavaScript/JQuery
- Android

Design and Visualisations

- Venism
- AutoCAD/SolidWorks
- Adobe Creative Suite

Other

- Agile Methodologies
- Microservice Dev (ActiveMQ)
- Version Control (Git)
- Automation (Gradle/Maven)

Interests

Tutoring

- NUIG Supervisor for Diploma
- Private Degree Tuition (17-20)
- Programming, Math, Physics
- 15% Grade Increase on Avg

Volunteering

- Waterpolo Club Chairman (18-20)
- Taught Coding to Kids (CoderDojo)
- Elected Class Representative for 250 engineering students
- PJP Award for Charity Work

Waterpolo

- Senior Men's All-Ireland Winner
- NUIG sports Scholarship
- Intervarsity Irish Team
- Captained U19/U16/U14 Champions
- Irish U17 Team European Champions

Work Experience

RESEARCH ASSISTANT FOR COMPUTER VISION (PROJECT LEAD)

National University of Ireland Galway | October 2020-Present

- Developing a human detection AI system to reduce drowning rates in urban environments
- Trained SOTA computer vision models to 80% prediction accuracy
- Publishing peer-reviewed paper 'The detection of people in the water with significant noise'

WEBSITE AND MOBILE APP DEVELOPER

Information Solutions & Services, NUIG | September 2019-September 2020

- Added 10 new features to NUIG App designed to enhance Student, Staff & Visitor experiences
- Increased website accessibility by 70%, implementing changes to conform with EU guidelines
- Presented monthly analytics, tracking user engagement, to the Board of IT

CO-FOUNDER OF TRADING ACADEMY

Altus Trading Academy LTD | April 2019-January 2020

- Co-founded start-up business which grossed €60,000 in Q1
- Educated over 1000 clients on coaching platform of the foreign exchange trading markets
- Launched digital marketing and sales campaign on Instagram attaining a 5% conversion rate

CLOUD SUPPORT ENGINEER (INTERNSHIP)

SAP Ireland | January 2018-August 2018

- Dealt directly with clients to achieve 98% efficiency for SLA targets
- Resolved 300 customer SAP product issues using JIRAs and documentation

Academic Background

NATIONAL UNIVERSITY OF IRELAND GALWAY

MsC in Artificial Intelligence (2019-2020) (First-Class Honours)

- 99th percentile rank in modules:
Machine & Reinforcement Learning, AI Ethics, Advanced NLP and Computer Vision

B.E. in Electronic and Computing (2015-2019) (First-Class Honours)

- Awarded scholarship to pursue a Postgraduate degree based on academic results

Associates Degree of French (2015-2017) (Upper Second-Class Honours)

- Achieved CEFR C1 fluency in French

Project Work

KNOWLEDGE GRAPH EMBEDDINGS TO IMPLEMENT EXPLAINABLE AI

- Trained Knowledge Graph Embedded models, exceeding MRR rank of 0.25
- Increased the understanding of a COVID19 dataset using Link Prediction and Explainability
- Collaborated with Genesys AI team Galway to align with industry standards

REAL-TIME EVENT DETECTION FOR VIDEO STREAMS

- Built pipeline using YOLO, MobileNet, and OpenCV to detect cars and classify attributes
- Gained F1-Scores of 94% for car detection, 85% for car type and 90% for car colour

FOOTBALL HEADING TRAINING PLATFORM

- Created a real-time wearable system to detect heading forces with Bluetooth transmission
- Developed an Android Mobile App to communicate and analyse the data recorded
- Classified heading events to 70% accuracy using a time-series sequential model