Euan Goodbrand - London

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Education

Imperial College London — London, UK
Master of Science in Computing (Artificial Intelligence and Machine Learning)(Pred: Distinction) — *Oct. 2023 – Oct. 2024*

University of Sheffield — Sheffield, UK
Bachelor of Science in Computer Science; First Class Honours (Top Student in Cohort) — *Sep. 2020 – Jul. 2023*

Architectural Association — London, UK
FHEQ level 4 Certificate in Architecture — *Sep. 2019 – Jul. 2020*

Denstone College — Derby, UK
A-Levels in Maths, Physics and Design Technology — *Sep. 2017 – Jul. 2019*

Work Experience

Stantec, previously Barton Willmore — Reading, United Kingdom
Internship — *Jun 2018 – Aug 2018*

- Executed a dynamic summer internship with Stantec, an international professional services company in the engineering, design and consulting industry, situated in the architectural department of Barton Willmore.
- Spearheaded collaboration with Stantec's architectural team, driving the integration of technology solutions to optimise project outcomes within a university campus project.

Endless Design Ltd. — Douglas, Isle of Man
Internship — *Apr 2018 – Jun 2018*

- Developed and optimised 3D models for various projects, enhancing the visualisation process for both internal reviews and client presentations.
- Assisted in creating and refining architectural drawings, ensuring they were accurate and aligned with client requirements and design intents.
- Collaborated closely with senior architects and designers, gaining insights into the design process and contributing to the timely completion of project deliverables.

David Bailey Architect Ltd. — Stoke, UK
Internship — *Jun 2018 – Sep 2017*

- Participated in the on-site supervision of a two-story, five-bedroom house, closely working with the architect to bring the design vision to life, especially focusing on a central multi-floor opening.
- Coordinated directly with the on-site construction team, ensuring the central opening was constructed according to the architectural plans and promptly addressing any deviations or concerns.
- Through vigilant oversight and clear communication with the architect and construction team, played a pivotal role in successfully realising the design's aesthetic and structural goals for the central multi-floor opening.

Projects

AI Movie Review Interpreter | *Python, Naive Bayes, Sentiment Analysis, Numpy, Pandas* — GitHub Link

- Developed a Naive Bayes Multinomial Classification model to analyse and classify movie reviews, overcoming the limitations of traditional star ratings by offering nuanced insights into specific aspects of movies like sound and visual effects.
- Implemented data preprocessing steps for cleaning the data and feature extraction techniques to calculate sentiment scores for each feature token, utilising libraries such as Numpy and Pandas for data handling and manipulation.
- Evaluated model predictions using Macro F1 scores, fine-tuned the model based on evaluation insights, and achieved substantial improvement in sentiment analysis, particularly in the five-class model with feature extraction.

Procedural Modelling and Generation Software | *Java, Python, Maven, Graphics*

- Conducted a dissertation project exploring algorithms for producing complex graphic models for specific purposes and had the opportunity to present it to more than 1,000 developers at the Sumo Digital Developer Conference 2023.
- Utilised Java, Python, and Maven to create 3D models and textures through procedural modelling using state-of-the-art algorithms from relevant white papers.
- Successfully developed advanced 3D interactive models for enhanced user experience. User testing and feedback were positive, showing successful completion of the specification.

Online Extenuating Circumstances Management Website | *Bootstrap, Ruby on Rails, MVC* GitHub Link

- Identified a need for a system to manage extenuating circumstances in a flexible workplace. Led a team of engineering students to create an MVC Ruby on Rails-based system.
- Utilised Agile Development practices, Bootstrap for design, PostgreSQL for data management, and Capybara testing.
- Delivered a successful project that satisfied the client, who highlighted leadership and software testing skills.

Card Shuffling Product | *C++, Embedded Software, aREST (JavaScript, HTML, CSS)* GitHub Link

- Preventing card shuffling cheating necessitates a unified hardware-software solution.
- Utilised C++, aREST interface, servo motors, and microcontrollers to build a product that merges embedded systems, web development, and 3D printed iterative prototyping with jam detection using ultrasonic sensors.
- Successfully created a system that prevents cheating in card shuffling without damaging cards.

OpenGL 3D Renderer, Animated Scene | *Java, Python, Maven* GitHub Link

- Utilised OpenGL to create a 3D renderer, models and animation.
- Implemented a 3D renderer using the Phong illumination model and animations using hierarchical models and linear interpolation controlled through a GUI.
- Successfully created a complete 3D scene showcasing complex lighting, texturing and animation.

Mentor-Mentee Website | *Ruby, HTML, CSS, and SQLite3* GitHub Link

- Identified a need for a streamlined platform to connect university mentees with mentors.
- Developed a web application named the Mentor-Mentee Matching System. Leveraged Ruby on Rails, HTML, CSS, and SQLite3 to create an intuitive interface and efficient matching algorithms.
- Facilitated easier, more efficient mentor-mentee connections, enhancing students' academic journeys.

Please don't hesitate to ask if you have a particular type of project in mind, and I might not be listed here. There are more projects related to AI and ML primarily.

Awards & Certification

Douglas Lewin Memorial Prize: Awarded for best examination performance in the Department of Computer Science.

Software Hut Prize: This prize is awarded in recognition of software development for a real-world client for the most effective software, following an agile development process.

Global Engineering Challenge-Best Communicated Solution Award : This is awarded to one team per project for researching and presenting a cost-efficient and effective solution to the EWB board members.

AWS Certified Cloud Practitioner: AWS CCP Certificate validates a high-level understanding of AWS Cloud services.

Python Programming Masterclass: Completed a course on Advanced Python Programming, Udemy.

Docker & Kubernetes: The Practical Guide: Completed a course on Docker and Kubernetes, Udemy.

Design Technology Award: Awarded to the top student in Design and Technology. The only student ever to achieve this award for both years of the course.

Skills

Programming Languages: Python, Java, C++, JavaScript

Technologies: AWS, Git, Docker, Kubernetes, TensorFlow, Scikit-learn, OpenCV, NumPy, Pandas, Matplotlib, Seaborn, MYSQL, PostgreSQL, Maven, Junit, Linux, Blender, Houdini

Methodologies: Agile Development, OOP