Euan Goodbrand - London

Mobile: +44 7988 418228
Github: https://github.com/euangoodbrand
Email : euangoodbrand@gmail.com
Linkedin: https://www.linkedin.com/in/euangoodbrand
Website: https://euangoodbrand.com

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 1/300) — *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 — Reading, United Kingdom
Internship — *Jun 2018 – Aug 2018*

- Stantec is an international professional services company in the engineering, design and consulting industry; I was situated in the architectural department called Barton Willmore.
- Collaborated with architects to drive the integration of technology solutions, optimizing project outcomes.

Projects

Procedural Modelling and Generation Software Research | *Java, Python, Maven, Graphics* (Publication available at request)

- Conducted research exploring and creating novel algorithms for producing complex graphic models and presented research to over 1,000 developers at the Sumo Digital Developer Conference 2023.
- Utilised procedural modelling to create 3D models and textures using state-of-the-art algorithms from research papers.
- Successfully developed advanced 3D interactive models for enhanced user experience. User testing and feedback were positive, showing successful completion of the specification.

AI Movie Review Analysis (Top 5% on Kaggle Dataset) | *Python, Numpy, Pandas, NLTK* GitHub Link

- Developed and applied a Naive Bayes Multinomial Classification model to the Rotten Tomatoes movie review dataset from Kaggle, achieving a performance within the top 5% of competition standards.
- Implemented efficient data preprocessing and feature extraction techniques, using Numpy and Pandas, for sentiment analysis of movie reviews.
- Conducted rigorous model evaluations using Macro F1 scores and accuracy, achieving high scores.

Deep Q-Network for Cart Pole Balancing OpenAI Gym | *Python, PyTorch, Reinforcement Learning* Github Link

- Initiated a project to explore the application of Deep Q-Networks (DQN) in solving the Cart Pole balancing challenge using OpenAI Gym.
- Independently designed and implemented a DQN model, experimenting with various hyperparameters. Undertook an extensive testing process with 300 episodes across ten runs for comprehensive model validation.
- Successfully developed a robust and efficient AI model, achieving rapid convergence and high performance in a dynamic reinforcement learning setting.

Online Extenuating Circumstances Management Website | *Bootstrap, Ruby on Rails, MVC, PowerBI* 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, Capybara for testing and MS PowerBI slicers for dynamic, interactive data visualisation.
- 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.

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.

Databricks Generative Ai Fundamentals Accreditation: Proficient in generative AI models, applicable to modern data science.

Databricks Lakehouse Fundamentals Accreditation: Knowledgeable in Databricks Lakehouse architecture, with skills in data management and analytics.

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. Only student to win for all attended years.

Skills

Programming Languages: Python, Java, C++, JavaScript, TypeScript, Ruby(Rails)

Technologies and APIs: AWS, Kubernetes, TensorFlow, Scikit-learn, OpenCV, NumPy, Pandas, PyTorch, React, Matplotlib, Seaborn, MYSQL, PostgreSQL, Linux, Agile Development, OOP

Tools: Github, Github CI/CD, Git, Docker, PyTest, PowerBI, Apache NiFi, Maven, Gradle, Junit, RSpec