Andrew Parry

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Github: https://github.com/Parry-Parry

EDUCATION

University of Glasgow

Glasgow, Scotland

PhD in Computer Science - Full scholarship; Research in Neural Search Robustness

Oct 2022 - 2025

University of Glasgow

Glasgow, Scotland

Bsc (Hons) in Computer Science with specialization in Data Management: 1st Class Honours Sept 2018 - May 2022 Courses: Artificial Intelligence, Machine Learning, Deep Learning, Big Data, Text as Data, Information Retrieval, Functional Programming, Algorithmics

SKILLS SUMMARY

- Languages: Python (Strong), C++ (Proficient), R (Proficient), Java (Proficient), C, Q, SQL,
- Tools: Pytorch, Tensorflow, Spark (Java & Python), Kubernetes, Docker, GIT, Azure ML, DevOps and Data Pipelines, Postgre, Power BI, FastAPI

Experience

University of Glasgow

Glasgow, Scotland

Research Assistant

May 2022 - Sept 2022

- o Produced Novel Architecture with Real Applications: Using neighbourhood sampling to generalize to populations in multiple modalities when training with low information. Specifically utilising concepts from local robustness and generalization through ensemble networks trained with variational methods.
- Empirically Tested New Preprocessing Method: Investigated multiple methods with empirical testing of parameters. Applied proper software development practises to create a scale-able reusable codebase.
- Verified Masters Thesis Results: Verified baseline results and took steps to optimize previous codebase to better scale to both larger models and datasets using Tensorflow probability.

Waterstons Consulting

Durham, England

Data Analytics Intern

May 2021 - August 2021

- o Delivered Production Ready Image Classification Model: Handled full development of a production ready model and inferface with a client representing a large logistics company. Created a high performing image classification model and deployed it with a REST API to be integrated into a larger software suite. Feedback from my client was excellent.
- o Delivered HR Dashboards for Senior Management: Created dashboards delivering KPIs and graphs for HR tasks and goals integrated with a HR database to reduce workload updating senior management.
- o Modernised Assessment Process for Software Bidding within the Company: Created a digital form and associated dashboard to quickly assess the opinions of multiple stakeholders in a software bidding process to replace previous manual methods.
- o Provided On-site Training During Client Merger: Assisted with digital transition during the merger of two clients, provided I.T and database training across the full hierarchy of employees.

Digital Skills Scotland

Glasgow, Scotland

Teaching Assistant, Graphic Designer

June 2015 - Sept 2021

- o Designed Graphics for Online Learning: Created banners for lessons catching the attention of Edinburgh University with whom I created a banner for a talk and workshop at their science festival.
- o Provided Learning Materials for SQA National 5 Computing Course: Provided a mock brand logo and web assets to be used in the National 5 Computing Web Design component of teaching.
- Assisted Teaching in Disadvantaged Areas of Glasgow: Worked with children and young adults to help them develop an interest in both programming and wider technology such as hardware including Arduino and Raspberry Pi computers.

SELECTED ACADEMIC WORKS

- LLM Based Re-Ranker (Natural Language Processing / Information Retrieval): Investigating sample importance to find highly representative subsets of datasets in Neural Ranking utilising both stochastic and un-supervised methods to improve model performance in ranking tasks.
- Context Attacks on Retrieval Systems (Natural Language Processing / Information Retrieval): Investigating sample importance to find highly representative subsets of datasets in Neural Ranking utilising both stochastic and un-supervised methods to improve model performance in ranking tasks. Under Review.
- Deep Learning with Aggregate Level Uncertainties (Machine Learning): Using ensemble methods and variational inference to extrapolate from aggregate training examples, Applications in low information environments and privacy-preserving ML across multiple modes of data. Under Review.

ACADEMIC SERVICE

- Marking: Text as Data (MSci), Machine Learning (BSc Hons)
- Peer Review: Springer Nature Computer Science
- Assistant Reviewer: KDD'23, WWW'23, ICTIR'23, CIKM'23, SPIRE '23, NeurIPS'23
- Undergraduate Mentoring: YanLing Liu, Rajan Rana
- Postgraduate Co-Supervision: Rachael Charmaine Martin, Hallton Jiao