KELLY B. IRAHOLA VALLEJOS

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EDUCATION

Master of Science in Computer Science with Honors (Integrated) | University of Exeter, United Kingdom   Degree obtained June 2025

- Member of university's following societies: Computer Science, Cybersecurity, Women's Football

RELEVANT PROJECTS

Predicting Consumer Demographics from Shopping Data *(Nov–Dec 2023)*

- Built a Random Forest ML model achieving 75% accuracy in predicting gender from consumer behavior.
- Applied PCA for dimensionality reduction and SMOTE for class balancing to address bias and interpretability.
- Analyzed feature importance, uncovering behavioral drivers to support targeted marketing strategies.
- Evaluated performance with precision, recall, F1-score, and confusion matrix, and structured findings for non-technical stakeholders.

Polarization Detection on Reddit Using NLP *(Nov 2023–Apr 2024)*

- Developed a modular NLP inference pipeline to classify feminist vs. anti-feminist rhetoric using transformers, SVMs, and lexicon-based sentiment models.
- Implemented reusable preprocessing workflows and integrated custom lexicons (e.g., Hatebase, Incel Dictionary).
- Focused on scalability and ethical ML, exploring temporal dynamics, user behavior patterns, and moderation impact.
- Documented and packaged the project for deployment, evaluation, and reproducibility.

Interactive Django Web App – Sustainable Campus *(Nov 2022–Mar 2023)*

- Co-developed a full-stack web app (Python/Django/JavaScript) using QR location verification, virtual economy, and gamified user behavior.
- Built robust user authentication, item store, and friend-tracking functionality.
- Used Git for version control and SQL for backend data management.

Reproduction: Phishing URL Detection via Network Analysis *(Oct–Nov 2024)*

- Reproduced and validated a peer-reviewed ML-based phishing detection pipeline using URL graph-based features.
- Wrote a formal evaluation report and delivered an oral presentation, demonstrating strong technical writing and communication.

RELEVANT EXPERIENCE

Events Assistant | University of Exeter's Student Guild | Exeter, United Kingdom *(September 2024 – June 2025)*

- Assisted in facilitating various events to enhance student community engagement.
- Supported event logistics and attendee engagement; strengthened public speaking and organizational skills.

Lead Teachers Assistant | Girls Who Code | USA *(May 2024 – July 2024)*

- Taught and supported 40+ students in live Python sessions; managed debugging and breakout room facilitation.
- Coordinated with Bank of America and Synchrony to deliver impactful STEM outreach programs.

Workshop Leader | ExCode Exeter Entrepreneurs | Exeter, United Kingdom *(October 2022 – December 2022)*

- Led an 8-week Python training using Google Colab; tailored learning for beginners and supported diverse skill levels.

TECHNICAL SKILLS

- Languages & Frameworks: Python, C++, JavaScript, Django, SQL, scikit-learn, TensorFlow, PyTorch, HuggingFace, NLTK, SQL, React,js
- Tools & Platforms: Git, Jupyter, SMOTE, PCA, BERT, Linux, MacOS, VS Code, Zoom
- Concepts: Machine Learning, Sentiment Analysis, Inference Systems, NLP, Data Preprocessing, Model Evaluation, Optimization, Ensemble Methods, Dimensionality Reduction, Pen Testing, Metasploit, Kali, Ethical Hacking

Languages: English (Fluent), Spanish (Fluent), Chinese (Limited), French (Elementary)