Arjun Krishnatry

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Education

BSc, Honors Specialization in Computer Science — London, Ontario
University of Western Ontario — Expected 2027

- **Honors/Awards:** Western Scholarship of Distinction ($3,500), 2023 Dean's Honor List
- **Clubs:** Western AI, Undergraduate Computer Science Club, Cyber Society

Skills

Technical Languages: Python, SQL, R, ARM, C/C++, JavaScript/TypeScript, HTML/CSS,
Libraries/Frameworks: Pytorch, TensorFlow, scikit-learn, NumPy, pandas, Matplotlib
Tools: Git/GitHub, Unix/Linux, Flask, React, Next.js, GAUL/SSH, LaTeX, Jupyter Notebooks

Experience

Machine Learning Intern | *Python, scikit-learn, TensorFlow, pandas, Jupyter Notebooks* — Chennai, Tamil Nadu
Solverminds Solutions — May 2024 – Dec 2024

- Built a **Deep Q-Network (DQN)** agent and environment for container stacking optimization; incorporated lashing constraints to improve layout feasibility and reduce cost for clients by autonomizing container stacking protocols
- Researched supervised models (**XGBoost, KAN**) on a Hydrostatic dataset using **TensorFlow** and **scikit-learn,** reaching a Mean Absolute Percentage Error of **0.09%** from a 9th-degree Polynomial Regression Algorithm
- Designed reward shaping and scenario simulators in a custom environment aligned with international port operations;
- Helped mentor incoming interns by supervising learning, aiding with tasks given to them by superiors and having weekly meetings to discuss progress; These incoming interns were able to join the team a week before schedule

Projects

CodeBuster | *Python, scikit-learn, PyTorch, Streamlit* — Oct 2025 – Present

- Developer on a 6-person team working on CodeBuster, an AI code plagiarism detector designed to identify similarities beyond token matching, creating a more effective alternative to traditional plagiarism detection software
- Implementing **TF–IDF** features, **GRAPHCodeBERT**-based embeddings, and output-based similarity to capture syntactic, semantic, and behavioral signals, allowing for **50%** higher rate of plagiarized code being caught
- Training an **MLP** to fuse the token, semantic and output scores into an overall plagiarism-risk prediction score; manipulating hyperparameters in the model and building tests resulted in a **37%** decrease in mean absolute error
- Project to be presented at the Canadian Undergraduate Conference on Artificial Intelligence 2025 as a part of the Western AI club; A research paper will also be written and completed detailing the outcomes of CodeBuster

EasyAccounting | *React, Electron, FastAPI* — Jun 2025 – Aug 2025

- Cross-platform desktop app for financial tracking: **React** front end with **FastAPI** back end, packaged via **Electron**
- Implemented authentication, local encryption, custom expense categorization, and dashboards for summaries which allowed for user accessibility to increase as they were able to have custom expense categories and dashboards
- Created to help with financial tracking for close family, is currently used once a month with plans for a wider release with plans for stronger cybersecurity by implementing CI security checks (dependency scanning, static analysis).

Rust to Glory | J*ava, Swing, GitLab, JUnit* — Jan 2024 – Apr 2024

- Collaborated with a 4-person team to deliver a **Java/Swing** educational game for the class CS2212 final project, designed custom UI panels, animations for characters, an item inventory subsystem to receive a mark of 97%
- Wrote extensive **JUni**t tests and refactored the MVC structure for maintainability; used **GitLab** issues frequently for tasks and merge requests for disciplined collaboration resulting in an efficient goal-oriented team environment

Other

Languages: English (Native), Hindi (Conversational), Mandarin (Conversational)
Certifications: IBM Z Xplore – Concepts Badge, IBM – Artificial Intelligence Fundamentals