Mercy Doan

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Education

Queen's University, Bachelor of Computing (Honors) — Kingston, ON
Specialization in Computing and Math, focus in Data Analysis and Statistics — *Sep. 2020 – Apr. 2024*
Areas of Study: Data Analysis, AI, Machine Learning, NLP, Software Security, Data Structures, Algorithms

Experience

NLP Project Manager — May 2022 – Present
QMIND (Queen's Machine Intelligence and Neuroevolution Design) — *Kingston, ON*
- Led a team of 4 to build a ML model that analyzes code for security vulnerability detection
- Educated students on a variety of NLP techniques (Deep Learning, LSTMs, Transformers), drawing from current research methods

Vice-President of Operations — May 2021 – Present
COMPSA (Queen's Computing Students' Association) — *Kingston, ON*
- Led a team of 50+ students in portfolios of Academics, Equity, Events, Marketing, and Professional Development
- As UI/UX Team Lead, communicated with stakeholders, designers, and developers to develop a new full-stack application for 1200+ students using AWS, React, Next.js, and Figma

ExploreCSR Research Mentee — May 2022 – Present
Google — *Kingston, ON*
- Analyzed and applied research papers on autonomous vehicle security, software development life cycles, vulnerability detection, and machine learning techniques used in cybersecurity
- Proposed new ways to improve an autonomous vehicle software security and development method by using regression techniques to prioritize vulnerability metrics

Co-President — Mar. 2022 – Present
QLANG (Queen's Languages and Linguistics Club) — *Kingston, ON*
- Founded the first Languages and Linguistics Club at Queen's University
- Led a team of 4 directors to organize events and promote a like-minded community
- Held weekly workshops with professors and clubs to educate 60+ members on relevant topics

Computing and Math Teaching Assistant — Sep. 2021 – Present
Queen's School of Computing — *Kingston, ON*
- Provided office hours and feedback on Python and Java assignments for 50+ undergraduate students on a weekly basis, and debugged code with concepts up to recursion, tkinter, machine learning principles, OOP, etc.
- Dicussed interesting math puzzles with first year students to foster an engaging and creative environment

Projects

Data Analytics Projects | *MATLAB* — Jan. 2022 – Apr. 2022
- Reported on 7 data analytics projects, such as predicting commodity costs and clustering fruit cultivars
- Implemented data analysis methods such as PCA, LDA, dimensionality reduction, and artificial neural networks
- Used tests to check efficiency of analyses, such as AUC/ROC curves and confusion matrices

Beacon | *Figma, Bootstrap, Javascript, Google Maps API* — Nov. 2020
- Built a website with a team of four that helps users find mental health support and resources
- Created the frontend to display nearby mental health services based on a mental health quiz result and the user's location

Technical Skills

Languages: Java, Python, MATLAB, R, HTML/CSS, Bash, C, JavaScript, Haskell
Frameworks/Technologies: React, Node.js, Bootstrap, WordPress, Git/GitHub, Figma
Libraries: Pandas, NumPy, Matplotlib, SciKitLearn, TensorFlow, Keras, PyTorch