VU ANH LE

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EDUCATION

Beloit College — Beloit, WI
Bachelor of Science, Mathematics — *Aug 2021 - May 2025*
Relevant Coursework: Mathematical Statistics, Differential Equations, Complex Analysis, Topology, Algorithm Design and Analysis

SKILLS & INTERESTS

Programming and Software: Programming (Python, MATLAB, R), Machine Learning (TensorFlow, PyTorch), Data Analysis (Pandas, NumPy)
Technical Expertise: Numerical Methods, Differential Equations, Remote Sensing (QGIS, ArcGIS)
Interests: Physics-Informed AI, Evidence-Based Decision-Making, Environmental Sustainability

WORK EXPERIENCE

Google Research — Remote
Research Intern — *Aug 2024 - Present*
- Developed a mathematical framework for analyzing the behaviors of neural operators. This framework provides theoretical guarantees on stability, exponential convergence, and generalization.
- Applied the proposed framework in designing a case study model for solving complex partial differential equations. Compared with the state-of-the-art works, it achieves 93% accuracy with 15% fewer training epochs.

Massachusetts Institute of Technology — Cambridge, MA
Research Assistant, Department of Nuclear Science and Engineering — *Aug 2023 – Present*
- Integrated two machine learning models (i.e., Random Forest and Bidirectional LSTM models) in the contaminant monitoring software for nuclear material safety supervision.
- Achieved 97.7% accuracy in predicting the time taken for nuclear analyte concentration to drop to safety levels.

University of Tokyo — Remote
Summer Intern, Graduate School of Frontier Sciences — *April 2022 - Aug 2022*
- Developed a sorting algorithm using dynamic programming and hidden Markov models (HMMs) to identify regions responsible for certain disease mechanisms.
- Implemented maximum likelihood estimation for parameter tuning in HMMs for efficient disease mechanism detection.

ADDITIONAL EXPERIENCE

Legal Initiatives for Vietnam — Remote
Paralegal Assistant — *Dec 2023 - Present*
- Conduct legal research on the current political strategies and policies implemented by Vietnamese authorities.
- Publish opinions on critical political issues via the affiliated newspaper "Luat Khoa Tap Chi".

Beloit Math and CS Club — Beloit, WI
Co-founder and President — *Aug 2021 - May 2023*
- Updated students on field-related opportunities such as research projects, internships, and employment.
- Set preparatory sessions for undergraduate competitions like the Mathematical Contest in Modeling and Putnam