Khoi Nguyen

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EDUCATION

The University of Texas at Dallas, Richardson, TX   Aug 2023 - May 2028
Doctor of Philosophy, Computer Science. GPA: 4.0
Fulbright University Vietnam, Ho Chi Minh, Vietnam   Sep 2019 - May 2023
Bachelor of Science, Computer Science. GPA: 3.91. *Summa Cum Laude*.

SELECTED PUBLICATIONS

- **Khoi P. N. Nguyen**, Vincent Ng, "Computational Meme Understanding: A Survey", *The 2024 Conference on Empirical Methods in Natural Language Processing*, **EMNLP24**
- Jeongsik Park, **Khoi P. N. Nguyen**, Terrence Li, Suyesh Shrestha, Megan Kim Vu, Jerry Yining Wang, and Vincent Ng. 2024. "MemeIntent: Benchmarking Intent Description Generation for Memes", *25th Meeting of the Special Interest Group on Discourse and Dialogue,* **SIGDIAL24**
- **K. P. N. Nguyen** and R. Ramanujan, "Lookahead Pathology in Monte-Carlo Tree Search." *The International Conference on Automated Planning and Scheduling,* **ICAPS24**

WORK EXPERIENCES

Solano Energy, Ho Chi Minh, Vietnam   Jun 2024 - Oct 2024
Artificial Intelligence Research Intern
- Built a **computer vision** application that estimates solar energy potential of a building just from user-input address, using **Dash (Python)** and **Azure VM**, boosting pre-sales for our solar panel installment service
- **Fine-tuned Segment Anything model** for roof segmentation on Vietnamese **satellite imagery data**
- Built an **annotation tool** for roof segmentation using **LabelStudio**, where the input data is collected online from the end-user application

Aikya Corporation, Ho Chi Minh, Vietnam   Jul 2023 - Aug 2023
Contract Data Scientist
- Implemented a **medicine matching model** using **TF-IDF** and **Logistics Regression** to map two databases of 100,000 medicines in Vietnam with 80% precision and 90% recall, which aids the company's market research

Koidra, Ho Chi Minh, Vietnam   Aug 2022 - May 2023
Machine Learning Research Intern
- Developed a **symbolic regressor** to learn agricultural control logic directly from greenhouse data with 72% accuracy, **reducing the onboarding time** for new customers by approximately 6%
- Implemented a **Python** codebase that ensembles **Decision Trees**, **Linear Regression**, and **Neural Networks**

Google x National University of Singapore, Singapore   Jun 2022 - Jul 2022
Student Researcher
- Built **classification models** on categories of text messages by training **Support Vector Machine** and finetuning **BERT** in **Scikit-learn**, achieving **90% accuracy**
- Constructed a **dataset** of 3000 **financially related text messages** to benchmark message classifiers

TECHNICAL SKILLS

Programming Languages: (Proficient) Python; (Familiar) C/C++, JavaScript, Java
Libraries and Tools: PyTorch, Tensorflow, Scikit-learn, AWS, Azure, Docker

AWARDS

Bronze Medal, International Collegiate Programming Contest, Asia-Pacific Regional Round. (2021)
Second Prize, Rank 27, Vietnam Olympiad in Informatics. (2019)