

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*.

PUBLICATIONS

[1] **K. P. N. Nguyen** and R. Ramanujan, “[Lookahead Pathology in Monte-Carlo Tree Search](#).” *Proceedings of The International Conference on Automated Planning and Scheduling*, 2024. (Forthcoming)

[2] N. Alemu, C. Hua, P. H. Le, **K. P. N. Nguyen**, M. Ali, and N. Veilleux, ‘A Framework to Develop Automatic Speech Recognition for Low Resource Languages’, in *Proceedings of the 54th ACM Technical Symposium on Computer Science Education V. 2*, Toronto ON, Canada, 2023, p. 1228.

WORK EXPERIENCE

The University of Texas at Dallas, Richardson, TX

Aug 2023 - Present

Graduate Researcher

- Leading the annotation of a first-of-its-kind benchmark on computational meme understanding with 10K question-answer pairs
- Trained vision-language models to interpret internet memes, using Few-shot Learning and Chain-of-Thought in PyTorch, establishing baseline results for the problem

Aikya Corporation, Ho Chi Minh, Vietnam

Jul 2023 - Aug 2023

Contract Data Scientist

- Implemented an end-to-end system using TF-IDF and Logistics Regression to map two databases of 100,000 medicines in Vietnam with 80% precision and 90% recall, aiding 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 7K lines of Python code that ensembles Decision Trees, Linear Regression, and Neural Networks

Google x National University of Singapore, Singapore

Jun 2022 - Jul 2022

Student Researcher

- Built models that detect the financial category of a user’s text message by training an SVM and finetuning BERT in Scikit-learn, achieving 90% accuracy
- Collected and annotated a dataset of 3000 financially related text messages to benchmark message classifiers

Holistics, Ho Chi Minh, Vietnam

Jun 2020 – Aug 2020

Software Engineer Intern

- Implemented version control feature for dbdiagram.io in VueJS, which resulted in the freedom to roll back in time for over 200,000 users
- Coordinated the technical support system of dbdiagram which helped convert customers to the premium plan

SOFTWARE PROJECTS

OneSchedule (<https://nnpkhoy.github.io/oneschedule>)

- Built a web application to visualize class schedules that serves over 9000 user sessions

- Built the responsive UI in ReactJS and Bootstrap that allows students to plot their class schedules 10x faster than the university's official tool
- Implemented a scraper (<https://github.com/npnkhai/fuv-scraper>) with Python Selenium to automatically scrap the official schedule of the university, reducing the semesterly maintenance time to 20 minutes

ADDITIONAL EXPERIENCE

University of Texas at Dallas, Richardson, TX

Sep 2023 - Present

Teaching Assistant

- Assisting with grading and administrative tasks for Computer Science courses up to graduate level, achieving excellent reviews from professors

Fulbright University Vietnam, Ho Chi Minh, Vietnam

Feb 2020 - May 2022

Senior Peer Mentor

- Tutored over 100 undergraduate students in Maths and Computer Science via study groups and mentoring sessions

Fulbright STEM Club, Ho Chi Minh, Vietnam

Sep 2020 - May 2022

President

- Facilitated 10 long-term STEM projects with biweekly seminars to help STEM students get hands-on skills in STEM subjects
- Organized Trivia Night, a STEM game show for over 100 students, faculty, and staff
- Led a 4-person software team to deliver the website for STEM Club at <https://fulbrightstem.club/>

TECHNICAL SKILLS

Programming Languages: (Proficient) Python; (Familiar) C/C++, JavaScript, Java

Libraries and Tools: PyTorch, Tensorflow, Scikit-learn, Pandas, Numpy, Git, LaTeX

AWARDS

TPBank STEM Scholarship of \$2000 at Fulbright University Vietnam (2021)

Bronze Medal, International Collegiate Programming Contest, Asia-Pacific Regional Round. (2021)

Second Prize, Rank 27, Vietnam Olympiad in Informatics. (2019)