Toan Bui

San Jose, CA | Ann Arbor, MI 48109
toanbui@umich.edu | 408-333-8880

LinkedIn: https://www.linkedin.com/in/ToanMBui   Github: https://github.com/toanminhbui   Portfolio:https://toanminhbui.github.io/

Education

University of Michigan, *College of Engineering*   **Ann Arbor, MI**
                                                                                                                           May 2026

Bachelor of Science/Engineering in Computer Engineering
Course Highlights: EECS 281: Data Structures and Algorithms, EECS 270: Introduction to Logic Design, EECS 203: Discrete Mathematics
Awards/Honors: Marian Vaughn Williams Swortzel Scholarship, MUgSS Datathon First Place, MHacks AI track 2nd Place

Relevant Experience

Lasso Loop Recycling   **Ann Arbor, MI**
Software Engineer Intern   May 2024-Present
- Ideated and designed company's app **UI/UX** in Figma, collaborating with Lead Engineer to ensure coherence in app interface
- Worked with **Expo React Native** in **TypeScript** to develop and publish mobile app for Lasso machine control and appointment scheduling
- Helped train and Integrated company's Machine Learning model with 98% accuracy

Michigan Solar Car   **Ann Arbor, MI**
Race Strategist   August 2023-Present
- Part of the strategy team working with data analysis and weather prediction
- Working to convert raw data sent from solar car to live dashboard analytics using Python library and display using Streamlit
- Implemented Binary sorting algorithm in **C++** to determine optimal speed for fuel efficiency in each race tracks

Michigan Student AI Learning Club   **Ann Arbor, MI**
Member   August 2023-Present
- Utilized **Python** to develop a predictive **Machine Learning** model for car crashes using comprehensive data from the state of Ohio
- Enhanced expertise in data filtering, analysis, and management of large datasets
- Applied advanced machine learning frameworks, including **PyTorch** and **TensorFlow**, to build and optimize the prediction model
- Ensured accuracy and reliability in forecasting car crash occurrences through rigorous model validation and testing

William Jessups University   **San Jose, California**
Data Analyst   Sept. 2022-Apr. 2023
- Refined and analyzed thousands of data points with **R** and **JMP**
- Created informative visualizations and presented to peer groups
- Competed in various ASA and Kaggle competitions, earned 3rd place school-wide and honorable mentions
- Researched the correlation between pedestrian accidents and various road conditions, presented findings.

Personal Projects

Canvassist
- Won 2nd place in the ITS category at Mhacks16, largest student-run hackathon competition.
- Leveraged **OpenAI API** to develop tailored educational resources aimed at students utilizing the Canvas platform.
- Established a comprehensive vector database utilizing **MongoDB**, facilitating efficient searching of class assignments.
- Integrated prompts and assignment data seamlessly utilizing **Langchain**, enhancing user experience and accessibility.

Personal Portfolio
- Designed and developed a responsive personal portfolio website using **HTML, CSS, and JavaScript.**
- Implemented interactive elements and animations to enhance user engagement and experience.
- Ensured cross-browser and cross-device compatibility.

Thought Organizer
- Implemented twitter like thought storage and retrieval tool using **RAG and vector embedding**.
- Vectorized thought chunks using Huggingface's **all-MiniLM-L6-v2**, and ran **local Llama 3 7B model** for thought reasoning.
- Implemented RESTful APIS using **FASTAPI** for thought gathering and insertion and hosted on **AWS**.

Price Scraper
- Created cross-platform price comparator for several Vietnamese online stores
- Gathered price data using **Selenium** for dynamic site loading and **BeautifulSoup** for scraping. and displayed data with **React.**
- Successfully able to compare 4 online shops and experience an average price saving of 30%

Additional

- **Languages:** Java, Python, R, C++, HTML/CSS, Javascript, TypeScript, Verilog, Quartus, Modelsim
- **Frameworks:** React, React Native, Expo
- **Tools:** Redux, Quartus, Modelsim, JMP, VSCode, Selenium, BeautifulSoup
- **Native Proficiency Languages:** Vietnamese, English, Mandarin Chinese