

# THANH NAM TRAN

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## Technical Skills

**Programming & OOP:** Python, C++, C#, .NET, Object-Oriented Programming (OOP)

**Databases:** Microsoft SQL Server, PostgreSQL, MongoDB, Database Management, Data Modeling

**Full Stack Development:** HTML, CSS, JavaScript, jQuery, Flask, Node.js, Express.js, React.js, Next.js, Django, Odoo ERP, REST API, FastAPI, Heroku, Render, BeautifulSoup

**Artificial Intelligence & Machine Learning:** AI, Machine Learning (ML), Generative AI, Large Language Models (LLMs), LangChain, Retrieval-Augmented Generation (RAG), Natural Language Processing (NLP), ChromaDB

**Data Science & Analytics:** R, RStudio, Pandas, NumPy, Scikit-learn, Data Analysis, Data Visualization, Plotly, D3.js, Tableau, Power BI

**Tools & Version Control:** Git, GitHub, Agile Development, CI/CD

## EXPERIENCE

### Software Developer at Media Cybernetics, Inc Rockville, MD 02/2022– Present

- Created and customized Media Cybernetics ERP systems using Odoo, performing full-stack development including front-end (Qweb, HTML, CSS, JavaScript) and back-end (Python, PostgreSQL).
- Managed DevOps tasks such as setting up CI/CD pipelines, automating deployments, and monitoring system performance using Kubernetes.
- Integrated third-party services and APIs to enhance ERP functionality,
- Developed custom modules and features within Odoo to meet specific business requirements, ensuring seamless user experiences and robust data handling.
- Conducted code reviews and maintained coding standards to ensure high-quality, maintainable code.
- Collaborated with the team to develop UX/UI guidelines, including creating a comprehensive style guide to ensure consistency across all user interfaces.
- Design and implement a Company Metrics data visualization dashboard using RestAPIs, Microsoft SQL, PowerBI, batch files to collect data from multiple agile frameworks improving weekly meeting efficiency and automating business processes.

### Engineering Intern at Media Cybernetics, Inc Rockville, MD 05/2021– 12/2021

- Maintain and update legacy code to ensure compatibility between multiple legacy Capture Interface versions.
- Develop and improve Capture Interfaces features using C++, software SDK, and microscope cameras API.
- Design specialized Zephyr Squad test cycles to help deliver quality testing
- Perform quality assurance testing on capture module in Image Pro, capture interfaces, and capture devices (microscope cameras).
- Apply the principles of Agile project management to control the project workflow.

## PROJECTS

### Share your song website – [Live](#) / [GitHub](#)

A fully functional music blogs made specifically to share music and connect people. NodeJS, ReactJS, Semantic UI, MongoDB

- Combine efficient use of Semantic UI framework and customized CSS - JavaScript to create a minimalistic, clean, responsive, and user-friendly to all devices.
- The web-app is perfectly structured using NodeJS (Express) for enhance performance allowing handle multiple requests and asynchronous and event-driven.
- All the data are oriented using MongoDB for flexibility and full cloud-based host. The web-app is deployed via Heroku.

## EDUCATION

**University of Maryland, Baltimore County (UMBC)** 01/2025– Present ▪ M.S. Computer Science - AI/ML Focus

**University of Maryland, Baltimore County (UMBC)** 08/2019– 12/2021 ▪ B.S. Computer Science - Track Data Science

**Montgomery College** 08/2016– 05/2019 ▪ A.A Computer Science

## CERTIFICATES

### Microsoft Power BI Bootcamp - Simpliv Learning (2022) - [Certificate](#)

*Skill Acquired: Power BI*

- Mastered the fundamentals of Power BI, including data import, transformation, and visualization.
- Developed advanced skills in creating interactive dashboards and reports.
- Learned best practices for data modeling and DAX (Data Analysis Expressions) to enhance data analysis capabilities.

### The Complete 2024 Web Development Bootcamp – Udemy (2021) - [Certificate](#)

*Skill Acquired: HTML, CSS, Bootstrap, Javascript, JQuery, NodeJS, Express, API, Web Design UX/UI*

- Gained comprehensive knowledge in web development technologies, including HTML5, CSS3, JavaScript, and Node.js.
- Built and deployed multiple full-stack web applications using frameworks such as React and Express.
- Enhanced understanding of front-end and back-end development, as well as database management with MongoDB.

### Next.js 14 & React - The Complete Guide– Udemy (2021) - [Certificate](#)

*Skill Acquired: Next.js, ReactJS, Web Design UX/UI*

- Acquired in-depth knowledge of Next.js and its capabilities for server-side rendering and static site generation.
- Developed proficiency in building scalable and high-performance React applications.
- Learned advanced techniques for optimizing web applications and improving SEO.

### Statistics for Data Science and Business Analysis – Udemy (2021) - [Certificate](#)

*Skill Acquired: Statistics, Data Science, Business Intelligence*

- Mastered key statistical concepts for data science and business analysis.
- Applied statistical methods to real-world datasets for actionable insights.

### 100 Days of Code: The Complete Python Pro Bootcamp – Udemy (2020) - [Certificate](#)

*Skill Acquired: Python, Web Scraping, Beautiful Soup, Selenium, Flask*

- Completed a comprehensive Python programming course covering basic to advanced topics.
- Developed practical skills by working on 100 coding projects, ranging from simple scripts to complex applications.
- Gained proficiency in Python libraries such as Pandas, NumPy, and Flask, as well as web development and automation.

### LLM Engineering: Master AI, Large Language Models & Agents – Udemy (In-Progress)

*Skill Acquired: Generative AI, RAG, LoRA and AI Agents*

- Build advanced Generative AI products using cutting-edge models and frameworks.
- Implement state-of-the-art techniques such as RAG (Retrieval-Augmented Generation), QLoRA fine-tuning, and Agents.
- Deploy AI products to production with polished user interfaces and advanced capabilities.