



# Chau Nguyen

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## EDUCATION

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**University of South Florida — Tampa, FL** Jan 2024 – May 2025  
*Master of Science in Computer Science, Specialization in Machine Learning* **GPA: 4.00/4.00**

**Coursework:** Intro to Artificial Intelligence, Deep Learning, Computer Vision, Image Processing, Graph Theory

**University of South Florida — Tampa, FL** Aug 2020 – Dec 2023  
*Bachelor of Science in Computer Science, Minor in Mathematics* **GPA: 4.00/4.00**

## EXPERIENCE

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**Software Engineer Intern | Taperk — New York, NY** Sep 2023 – Dec 2023

- Developed the front end for iOS full and instant apps using **SwiftUI** and **Figma** for users to accumulate points and redeem rewards at stores via **NFC** tags. Utilized **HTTP**-based backend APIs to fetch and process **JSON** data.
- Improved app response times by **40%** by incorporating persistent data storage for unique identifiers with **Core Data**.
- Reduced the app size by **52%** by refactoring the codebase and using design patterns to optimize UI components.
- Conducted critical bug analysis by implementing unit testing, resulting in a **70%** increase in app performance.
- Utilized **Git** for effective version control and coordinated **TestFlight** deployment for cross-functional collaboration.

**Undergraduate Research Assistant | University of South Florida — Tampa, FL** Jan 2023 – May 2023

- Collaborated with a team of 3 to fine-tune **GPT-3.5** models using **OpenAI** to generate questions about user dietary intake and create nutrition data visualization dashboards by extracting **170,000+** entries from the USDA database.
- Built a cross-platform application (iOS, Android, web) using **Flutter** with chatbot and voice-assistant user interfaces.
- Configured **MySQL** database server and performed query optimization, enhancing data retrieval efficiency by **65%**.

## PROJECTS

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**Portfolio Website:** [www.minhchau.me](http://www.minhchau.me) (for additional information and project details)

**EmotiSounds | Brain-Computer Interface Project**

- Developed a personalized music-recommendation website utilizing **MongoDB**, **Express**, **Angular**, and **Node.js**.
- Built a **CNN** model for real-time facial emotion recognition with a **94%** accuracy using **OpenCV** and **Tensorflow**.
- Formulated a case-based reasoning algorithm to enhance user affective state with curated playlists via **Spotify API**.
- Created a dynamic dashboard with trajectory animations using **D3.js**, illustrating the improvement in user moods.

**Remind Me | USF Hack-a-Bull Award-Winning Project**

- Constructed a Chrome extension utilizing **React.js**, **TypeScript**, and **LocalStorage** to notify users of to-do tasks.
- Delivered a user-friendly and responsive web design for the to-do list reminder using **HTML/CSS** and **Material UI**.
- Led a team of 4 to improve web performance by **30%** by optimizing code through exceptional communication skills.

**Em-net | USF Hack-a-Bull 1st Place for CockroachDB Serverless Challenge**

- Developed an iOS app using **SwiftUI** and **Solana** blockchain to incentivize user engagement at USF campus events.
- Created **SQL** database schema with **CockroachDB** and built **REST APIs** via **Flask-SQLAlchemy** for integration.
- Utilized **Selenium** to automate real-time web scraping of **1,500+** USF campus events and updating the database.
- Incorporated a pre-trained **NLP** model, **DistilRoBERTa**, to classify user emotions via event feedback journaling.

**Rebye | Full-Stack Database Design Project**

- Developed a C2C e-commerce mobile app with **SwiftUI** and **Objective-C** for users to sell and buy items seamlessly.
- Optimized CRUD operations on **SQLite3**, reducing load times by **68%** by caching the most recently viewed items.
- Implemented user login authentication with **Firebase** and expedited secure payment transactions with **Stripe**.

## LEADERSHIP EXPERIENCE

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**Association for Computing Machinery (ACM) — USF | Treasurer and Web Master** Aug 2021 - Aug 2023

- Generated **\$6,000+** in funds supporting on-campus events, tech workshops, and conferences for **500+** members.
- Devised and executed a marketing strategy with 3 other chair members through social media platforms and in-person campaigns, which fostered **200+** new member registrations and a **40%** increase in participation rate.

## TECHNICAL SKILLS

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**Languages:** Python, C, C++, HTML, CSS, SQL, NoSQL, Java, Javascript, TypeScript, Swift, Objective-C, Dart

**Frameworks:** React, React Native, Node.js, Next.js, Express, Angular, Vue, PostgreSQL, MySQL, MongoDB, AWS, Flask

**Developer Tools/Operating Systems:** Git, Docker, Google Cloud Platform, VS Code, XCode, Linux, Windows, macOS