

# Michael Tu

Email : mtu4172@gmail.com | Mobile : 813-474-8289 | GitHub : mtu4172 | LinkedIn : mtu4172

## EDUCATION

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### University of Florida

Gainesville, FL

*B.S in Computer Science; GPA: 3.91/4.00*

*Aug 2021 – May 2025*

- **Relevant Coursework:** Operating Systems, Data Structures and Algorithms, Computer Networking, Statistics, Software Engineering, Linear Algebra, Computer Organization, Multimodal Machine Learning

## EXPERIENCE

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### Wells Fargo

Charlotte, NC

*Software Engineer Intern*

*June 2024 – Aug 2024*

- Collaborated in an agile environment to support prime brokerage functions, facilitating OTC derivatives trading.
- Automated risk calculation for corporate clients, providing data to daily revise the value of collateral securities.
- Analyzed execution plans in SQL Server to optimize database queries, resulting in a 417% performance increase.
- Parallelized VaR calculation to reduce processing time and improve computing resource allocation.

### Lockheed Martin

Dallas, TX

*Software Engineer Intern – Active Secret Security Clearance*

*June 2023 – Aug 2023*

- Worked on an agile team to develop embedded software on VxWorks real-time operating system.
- Wrote Ada code for PrSM Increment 1 missile guidance software and integrated it into a CI/CD pipeline.
- Performed HWIL simulation runs and interpreted Wireshark and telemetry data.
- Streamlined test documentation procedure using LaTeX and Git to allow for simultaneous access of documents.

## PROJECTS

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### City.io

*Jan 2023 – May 2023*

- Developed an online city-building game written in Go and TypeScript using the Angular framework.
- Designed user interface for login and game components. Ensured functionality of front-end components using Cypress End-to-End tests.
- Collaborated with teammates using Git, assigned issues, and planned sprints to ensure timely delivery of updates.

### Deep Guitar

*March 2023 – May 2023*

- Created a mulitmodal machine learning model, which uses both audio and visual input to identify guitar chords.
- Tracked hand positions using Mediapipe framework and extracted audio features using Librosa library.
- Trained a KNN model and convolutional neural network with visual and audio features to classify chords.
- Utilized late fusion to combine video and audio classifiers, producing a single model with improved performance.

## INVOLVEMENT

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### IEEE UF Student Branch

Gainesville, FL

*Media Coordinator*

*June 2023 – April 2024*

- Produced graphics and videos promoting corporate events, technical workshops, socials, and general body meetings.
- Collaborated with fellow board members to plan and organize professional and social events.
- Managed social media accounts to maximize engagement with 800+ members on Instagram and Slack.

## SKILLS

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- **Languages:** (Proficient) C++, Python, Java, C#, JavaScript/TypeScript, HTML/CSS, SQL, LaTeX (Familiar) MATLAB, R, ARM Assembly, Ada
- **Tools:** Git, Jira, .NET, SSMS, Cypress, Jupyter Notebook

## AWARDS

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- **Bloomberg Bpuzzled 2024 Finalist:** Represented University of Florida in international puzzle competition hosted by Bloomberg. Finished 8th among 43 universities that participated.
- **University of Florida Dean's List:** College of Liberal Arts and Sciences (Fall 2021 - Spring 2024)