

# Michael Tu

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## EDUCATION

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### University of Florida

Gainesville, FL

*B.S in Computer Science; GPA: 3.95/4.00*

*Aug 2021 – May 2025*

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

## EXPERIENCE

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### Lockheed Martin

Dallas, TX

*Software Engineering Intern – Active Secret Security Clearance*

*June 2023 – Aug 2023*

- Worked on an agile team to develop embedded software, collaborating using Jira and Confluence.
- 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.

### University of Florida

Gainesville, FL

*Teaching Assistant: COP3502C – Programming Fundamentals I*

*Aug 2022 – Present*

- Conducted office hours and gave weekly lectures to students enrolled in introductory Python programming course.
- Aided instructor in grading and providing feedback on student coursework including exams, labs, and projects.
- Helped develop course content, including programming projects, instructional materials, and study guides.

## 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 multimodal machine learning model, which uses both audio and visual input to identify guitar chords.
- Tracked hand positions using Mediapipe framework and trained a KNN model to classify images by chord.
- Extracted audio features using Librosa library and used features to train a convolutional neural network.
- Utilized late fusion to combine video and audio classifiers, producing a single model with improved performance.

### WordHunt Solver

*Oct 2022*

- Wrote a C++ app to solve the popular iMessage word puzzle game WordHunt.
- Implemented a backtracking algorithm to find words hidden in a 2D character array. Used a Trie data structure to store dictionary and validate candidate words.

## 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, JavaScript/TypeScript, HTML/CSS, MATLAB, LaTeX (Familiar) SQL, R, ARM Assembly, Ada
- **Tools:** Git, Jira, 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)