Michael Tu

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EDUCATION

University of Florida — Gainesville, FL
B.S in Computer Science; GPA: 3.90/4.00 — *Aug 2021 – May 2025*

- **Relevant Coursework**: Data Structures and Algorithms, Linear Algebra, Discrete Mathematics, Statistics, Programming Fundamentals I/II, Computer Organization

EXPERIENCE

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

WordHunt Solver — *Nov 2021 – Dec 2021, 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.

Minesweeper — *April 2022*

- Built a C++ app emulating the classic puzzle game, with added functionality including toggleable debug mode.
- Utilized Simple Fast Multimedia Library (SFML) API to support graphics and UI.

Database Research Project — *Feb 2021 – May 2021*

- Investigated the relationship between query size on relational database performance, comparing speed of full table and index scans. Both clustered and non-clustered indexes stored in B+ trees were tested.
- Used Microsoft SQL Server and T-SQL to evaluate performance on TPC-H benchmark.

INVOLVEMENT

Filipino Student Association (FSA) — Gainesville, FL
Multimedia Chair — *June 2022 – Present*

- Produced videos promoting Filipino culture, dance, and on-campus activities using Adobe After Effects.
- Collaborated with fellow board members to plan and organize social events for 300+ students.
- Aided in running first-year involvement program, held meetings to guide students through the process of producing communicative media.

HackGT 8 CTF Challenge — Atlanta, GA
Participant, Rank 16/88 — *Oct 2021*

- Applied knowledge of cybersecurity concepts including cryptography, web exploitation, and reverse engineering to solve challenges for hidden flags.
- Learned to identify software vulnerabilities and use technologies such as SSH and Wireshark.

SKILLS

- **Languages**: (Proficient) C++, Python, Java, MATLAB; (Familiar) SQL, JavaScript, R, ARM Assembly

AWARDS

- **National Merit Finalist**: Scored within the 99th percentile on the PSAT
- **University of Florida Dean's List**: College of Liberal Arts and Sciences (Fall 2021- Fall 2022)