

Michael Swan

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EDUCATION

University of Connecticut

Storrs, CT

Bachelor of Science in Computer Science

May 2025

- **Concentration:** Software Development
- **GPA:** 3.73 (Spring 2023)
- **Honors:** Dean's List: Fall 2021, Spring 2023, Alpha Lambda Delta Honor Society

PROJECT EXPERIENCE

MarketChat – Personal Project

Summer 2023

- Developed and launched "MarketChat" using the **MERN** stack, a financial web platform hosted on **Netlify** and **Heroku**, featuring a dynamic stock graph with data sourced from **AlphaVantage APIs**
- Leveraged **OpenAI's API** to integrate a GPT-powered chatbot, allowing users to ask complex financial questions and receive informed answers in real-time
- Enhanced search efficiency by **90%** by transitioning from real-time API calls to direct queries on a **MongoDB** database, complemented by a daily CRON job to ensure search result data remains current

Portfolio – Personal Project

Summer 2023

- Developed and designed a responsive personal portfolio using **HTML**, **CSS**, and **JavaScript**
- Implemented a contact form using a **Netlify** serverless function with instant submission notifications

Global Temperatures – University of Connecticut

Fall 2022

- Developed a hash mapping solution in **Python** using object-oriented design, enabling $O(1)$ time complexity for entries and modifications while maintaining $O(n)$ memory consumption
- Focused on test-driven development by writing unit tests and refining code until all tests succeeded
- Collaborated with a group of students leveraging an Agile strategy to successfully meet deadlines

RELEVANT COURSEWORK

Introduction to Computing for Engineers

Data Structures & Object-Oriented Design

Calculus I, II, & Multivariable

Introduction to Computer Architecture

Introduction to Principles of Programming

Algorithms and Complexity

Introduction to Discrete Systems

Systems Programming

WORK EXPERIENCE

Teaching Assistant for Computer Architecture

Storrs, CT

University of Connecticut

August 2023 – Present

- Lead weekly lab sections, providing hands-on instruction and guidance to over 20 students, ensuring comprehension and practical application of core concepts
- Conduct weekly office hours for over 150 students to address student questions, providing targeted assistance and improving overall class performance
- Collaborate with faculty to evaluate student assignments using designated rubrics, ensuring accurate and consistent grading

Merchandise Associate

Enfield, CT

Marshall's

June 2021 – November 2021

- Delivered exceptional customer service, resulting in increased loyalty and credit program participation

Front Gate Team Member

Agawam, MA

Six Flags

June 2019 – March 2020

- Managed ticket sales and entry processing for guests, maintaining high service standards

SKILLS

Languages: Python, C, Java, HTML, CSS, JavaScript

Technologies: React, Node.js, Express, MongoDB, Styled-Components

Developer Tools: Git, VS Code, npm