Michael Zhang

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EDUCATION

Georgia Institute of Technology   Atlanta, GA
Bachelor of Science in Computer Science   *May 2026*

Relevant Coursework:

Object-Oriented Programming, Data Structures and Algorithms, Design and Analysis of Algorithms, Computer Organization and Programming, Objects and Design, Discrete Mathematics, Applied Combinatorics

EXPERIENCE

Research Intern   June. 2024 – Aug. 2024
Texas Southern University   *Houston, TX*

- Conducted research on Stochastic Dynamic Programming, with a particular focus on discounted dynamic programming and its application in decision-making under uncertainty
- Gained practical knowledge in linear programming and policy improvement techniques, applying these methods to real-world problems like selecting job offers, stock investments, and gambling strategies
- Contributed to optimization projects by modeling and analyzing decision-making processes, improving team strategies and decision frameworks

Data Science Intern   May. 2023 – Aug. 2023
Baylor College of Medicine   *Houston, TX*

- Used the Seurat package in R to visualize and analyze data, helping to create clear, informative graphs and detailed data tables for a research project focused on aging in fruit flies
- Applied bioinformatics algorithms like principal component analysis (PCA) and specialized data structures to simplify analysis, making complex datasets more accessible and interpretable for research assistants
- Collaborated with researchers to design and launch a website that presented the findings and data tables from the Aging Fly Cell Atlas Project, making the results easily accessible and organized for broader use

PROJECTS

Coin Dash | *C, Docker*   April 2024 – May 2024

- Developed Coin Dash, a 2D arcade game in C, inspired by retro Gameboy Advance mechanics.
- Implemented dynamic obstacle avoidance and progressively larger coins to enhance gameplay difficulty.
- Used Docker for efficient testing and deployment, ensuring cross-platform compatibility.

Spotify Wrapped | *Java, Kotlin, Android SDK, Android Studio, Git, Firebase*   February 2024 – April 2024

- Worked with a team to create a Spotify Wrapped app using the Spotify API in which users can view their music listening statistics across different time ranges in Android Studio
- Implemented Firebase Authentication for secure cross-device user authentication and real-time data sync, enabling features like LLM API-powered custom music descriptions, access to previous Spotify Wrapped summaries, and interactive games such as Song Release Date Game and Popularity Guess within the dashboard of the app
- Utilized Glide to display images of the artists and song covers fetched using the Spotify API to replicate the visually appealing aspects of the actual Spotify Wrapped

College Scheduler | *Java, Android SDK, Android Studio*   January 2024 – February 2024

- Collaborated with a team to develop an Android app aimed towards helping college students efficiently manage their academic schedules in the Android Studio environment
- Implemented essential features allowing users to efficiently manage their academic responsibilities, including adding class schedules, exam details, assignment due dates, and maintaining a comprehensive to-do list
- Utilized Android SDK, Kotlin, and Java to construct a front-end structure, emphasizing user interface design and navigation, while also establishing a back-end structure for managing local data storage and ensuring smooth user interactions

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL, JavaScript, HTML/CSS, R
Tools/ Frameworks: Git, Docker, React, Node.js, Express.js, Angular, Flutter, Android Studio, Django, Firebase