Zachary Dexter

EDUCATION

The George Washington University

May 2027

Bachelor of Science in Computer Science

Washington, D.C.

- Major GPA: 3.7/4.0
- George Washington University Presidential Scholarship Recipient
- Relevant Coursework: Data Structures & Algorithms, Discrete Structures, Systems Programming, Computer Architecture, Operating Systems, Software Engineering, Computer Security, Databases & Team Projects

EXPERIENCE

Systems Programming Teaching Assistant

August 2025 – December 2025

George Washington University

Washington, D.C.

- Led weekly lab sessions for 50+ students, reinforcing fundamentals of **C programming**, memory management, and process control.
- Provided individualized support during office hours, resolving over **200 student questions** across the semester on topics like pointers, dynamic allocation, UNIX APIs, and inter-process communication.
- Collaborated with faculty to design, review, and grade programming assignments, ensuring students practiced low-level debugging, system calls, and code craftsmanship.
- Assisted students with the course's **final project**, msh (Mini-Shell), which implemented parsing, pipelines, job control, redirection, and signals to create a functional UNIX-style shell in C.

Projects

University Registration & Advising System: Full-Stack System

March 2025 - May 2025

Python: Flask, JavaScript, SQLite

- Developed a database-integrated web application as part of an **Agile team**, designed to process **100+ student** course registrations and **20+ advising forms** across multiple platforms.
- Designed the user interface and app navigation using **HTML**, **Bootstrap CSS**, and **JavaScript**, improving user experience by streamlining course schedule viewing, transcript access, and account creation.
- Implemented backend functionality with **Python Flask**, integrating **SQLite** for relational data storage, form processing, and ensuring secure, multi-client database access.

Spotify Stats & AI Playlist Generator

June 2025 - July 2025

JavaScript, Spotify API, OpenAI API, React, Vite

- Developed a full-stack web app using React, Node.js, Express, Tailwind CSS, and the Spotify Web API, with OAuth2 authentication and dynamic user data integration.
- Integrated **OpenAI**'s GPT-3.5 to generate and refine playlists based on natural language prompts, incorporating conversational feedback and genre analysis from user listening history.
- Designed a responsive UI with modals and real-time updates, allowing users to preview, edit, and save AI-generated playlists directly to their Spotify accounts.

NLP Covid Data Project

September 2024 - December 2024

Java

- Analyzed 150,000+ unique tweets to extract public sentiment and opinions related to COVID-19 using NLP techniques.
- Collaborated with a project partner to transform raw data into actionable insights on COVID-19 sentiment trends.

TECHNICAL SKILLS

Languages: Java, JavaScript, Python, TypeScript, C#, C, C++, HTML, CSS Frameworks/Other: React, Machine Learning, SQLite, Git, Node.js, Flask

LEADERSHIP POSITIONS

Production Director, TEDxFoggyBottom

October 2023 - Present

Oversaw team of 10+ students with \$5k+ production budget.

Executive Board Member, GW Software Engineering Club

January 2024 - Present

Worked with a team to organize weekly meetings and monthly events.

Math Tutor, GW Math Matters

August 2024 – December 2024

Partnered with DC Public Schools to provide high impact tutoring to elementary and middle school students.