

Darren Zheng

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EDUCATION

University of Maryland-College Park, College Park, MD 2022-Present
Bachelor of Science in Computer Science, Minor in General Business GPA: 3.7
Relevant Coursework: Web App Development, Game Development, Parallel Computing & HPC, Data Science, Computer Systems, Object Oriented Programming, Data Structures & Algorithms

EXPERIENCE

Software Development Intern June 2025 – August 2025
Amazon Web Services IAM Arlington, VA

- Designed and implemented a comprehensive and centralized metrics aggregation system for AWS IAM, collecting and storing metadata from dozens of services
- Performed hundreds of updated API calls using step functions with pre-production data to simulate data aggregation on the CloudWatch dashboard for analysis
- Streamlined a REST service integration testing with a personal pipeline, allowing enhanced monitoring and analysis of requests sent through AWS IAM and stored in the backend within 2 minutes
- Optimized metric aggregation via a new data pipeline, serializing hundreds of JSON data into S3 buckets
- Automated performance testing on various designs to optimize my implementation to have minimal impact on time and memory for millions of customers

Teaching Assistant – Web Application Development with JavaScript February 2025 – May 2025
University of Maryland College Park, MD

- Proctor exams and hold weekly 4 hour long office hours to support students in mastering foundational web development concepts, including HTML, JavaScript, CSS, databases, React, and Node.js
- Assist in grading dozens of assignments, providing detailed and constructive feedback to enhance student learning
- Develop teaching and mentorship skills while gaining hands-on experience in curriculum delivery and student engagement from an educator's perspective

PROJECTS

Stranded | *C#, Unity, Github* April 2025

- Created a comprehensive suite of 30+ C# scripts for a Unity-based first-person puzzle game, implementing core features such as first person movement, engaging story line, and context-sensitive object interactions
- Designed and implemented a dynamic procedural system that adjusts 4 distinct difficulty settings, procedural world generation, and enemy AI, creating a scalable and challenging experience
- Developed a comprehensive user-facing system featuring 3 distinct menus and over 7 interactive HUD elements, leveraging a modular UI architecture for inventory and quest tracking to enhance game play

Professional Website: darrenzheng.com (for additional information and projects) January 2025

Pokémon Gacha | *MongoDB, Node.js, JavaScript, CSS, HTML, PokéAPI* December 2024

- Developed a full-stack web application, a Pokémon Gacha Simulator, utilizing Node.js and Express.js to manage server-side logic and EJS for dynamic templating
- Implemented a user authentication and data persistence system using MongoDB to handle user accounts, increasing data retrieval efficiency by 90% compared to a non-indexed database
- Integrated PokéAPI to dynamically fetch and display Pokémon data, improving performance by caching frequently accessed data and reducing API calls by 70%

SAC Datathon-NBA Proposal | *Python, Pandas, Scikit-Learn* March 2024

- Developed a linear regression model to analyze over 10,000 real world records in order to determine ideal locations to form new NBA teams based on real world data for Deloitte's Datathon competition
- Utilized Pandas and Scikit-Learn to perform exploratory data analysis to perform feature extraction to identify key important factors such as fan base data, reducing computation time of the regression model by over 80%

TECHNICAL SKILLS

Languages: Python, C, C++, Java, JavaScript, HTML, CSS, R, MATLAB, TypeScript, Ocaml, Assembly, Dart, Rust, Kotlin, C#, Dafny, Haskell
Frameworks: React, Node.js, Flutter
Developer Tools: Git, Microsoft Apps, Pandas, SQL, Unity, AWS (S3, CloudWatch, Step Function, IAM)