Mihir Balsara

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

Candidate for Bachelor's in Computer Science

Aug. 2023 - Dec. 2026

Technical Skills and Awards

Languages: Java, Python, SQL (Postgres), PHP, JavaScript, HTML/CSS, C#

Frameworks: React, Node.is, JUnit, WordPress

Developer Tools: Jenkins, Git, Docker, Amazon Web Services, VS Code

Operating Systems: Windows, MacOS, Debian Linux Libraries: pandas, NumPy, Matplotlib, Seaborn, SciPi

Awards: Xerox Award for Innovation and Information Technology, Cornell Health RX Hackathon Winner, CDAIT IOT

Challenge Finalist

Experience

Cybersecurity Research Intern | C, Java, Jenkins, Python, docker, Git

May 2024 – Present

Georgia Tech Research Institute

Atlanta, GA

- Competing in the DARPA AI Cyber Challenge (AlxCC) with Team Atlanta (SSLab, GTRI, KAIST Hacking Lab, Samsung Research Korea, etc.)
- Qualified for AIxCC Finals at DEFCON 32
- Develop automated tools utilizing fuzzing and machine learning to automate vulnerability detection and patching

Software Developer Intern | WordPress, PHP, SQL, CMS

Apr. 2023 – May 2023

RK Centers

Burlington, MA

- Designed and developed a custom CMS platform for streamlined property and snow bidding processes
- Built a secure login and user-friendly property selection portal using WordPress and PHP
- Optimized MySQL database structure to ensure seamless integration with the new site framework
- Increased client-server interaction efficiency by 20% resulting in faster loading times and improved user experience

Research Assistant | Python, pandas, Matplotlib, Seaborn, SciPy

Aug. 2021 – Jul. 2022

Boston College

- Chestnut Hill, MA • Conducted research on the impact of online vs. offline education on student performance in mathematics
- Utilized data visualization tools to create compelling visuals that highlighted the differences in students' math performance reports
- Published research findingsin peer-reviewed Boston College journal

Data Engineer | Python, pandas, Matplotlib

Jun. 2021 - Aug. 2021

Russian School of Mathematics

Lexington, MA

- Mined student score and report data from RSM's database to identify trends in student performance
- Created an efficient algorithm to process and analyze 2 million student data points
- Leveraged pandas library to clean and prepare 2 million student data points for analysis

Projects

1Record - Cornell Health RX Winner | Python, MongoDB, ReactJS

• Developed software using LLMs to extract context from Electronic Health Records, sort patients by similarity, and predict rare condition symptoms for tailored treatments.

Omex Development | JavaScript, Node.js, MongoDB, Docker, Jenkins

Jul. 2021 – Present

- Designed and developed two applications for the Discord platform, reaching a user base of 346,075
- Automated application deployments using Docker containers
- Implemented a Jenkins pipeline for continuous integration and delivery minimizing update downtime to under 5 minutes

Spotify Wrapped | Android Studio, Java, Gradle, Firebase, GitHub

Feb. 2024 – Apr. 2024

- Developed a mobile app with Firebase authentication for login and account management
- Integrated Spotify API to generate personalized music recommendations
- Developed a Community Page where users can explore other accounts, view top artists, and share top songs