# Mihir Balsara

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#### **EDUCATION**

## Georgia Institute of Technology

Atlanta, GA

Candidate for Bachelor's in Computer Science

Aug. 2023 - Dec. 2026

#### EXPERIENCE

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

May 2024 – Present

Atlanta, GA

Georgia Tech Research Institute

• Competing in the DARPA AI Cyber Challenge (AlxCC) with Team Atlanta (SSLab, GTRI, KAIST Hacking Lab, Samsung Research Korea, etc.)

- Develop **fuzzing** tools to find vulnerabilities within Jenkins source code
- 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

# ${\bf Research\ Assistant}\ |\ {\it Python,\ pandas,\ Matplotlib,\ Seaborn,\ SciPy}$

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 findings on the impact of online vs. offline education on student performance in mathematics in a peer-reviewed journal at Boston College

### 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

#### Georgia Tech Experimental Rocketry | Python, C++

Sep. 2023 – May 2024

• Developed a Controller Area Network (CAN) module to communicate with ground team and rocket

#### 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 downtime during updates to less than 10 minutes

#### Silicon Studios | Lua, Blender, Roblox Studio

Jul. 2018 – Present

- Managed development of the popular Roblox game, "Drive a Tesla," achieving over 5 million visits
- Managed a team of builders and developers to create functional game assets
- Recipient of the Adurite Crown of O's virtual award for exceeding 10,000+ monthly active users

#### TECHNICAL SKILLS AND AWARDS

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

Frameworks: React, Node.js, 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