

Amir Hamza

Contact

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Links

amirhmz.com

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Education

Iowa State University
Bachelor of Science
Computer Engineering

Graduation

May 2021

Skills

Languages

Java, C#, Kotlin, C,
JavaScript, and TypeScript

Frontend

Bootstrap, React.js/Redux,
Angular.js, and Android
SDK

Backend

Spring Boot, Node.js, and
.NET

Databases

Microsoft SQL Server,
MySQL, and MongoDB

Clouds

AWS, Azure, Heroku, Netlify,
and Balena

Security Tools

Burp Suite, OWASP ZAP,
NMAP, Netcat, and
Metasploit



Work Experience

Application Security Intern - Nelnet Inc.



Remote



December'20 - Ongoing

- Carrying out web penetration testing of company's internal web tools and providing quality and assurance to the codebase

Software Developer Intern - Manatt's Inc.



Remote



August'20 - December'20

- Built company's internal financial tool in **Angular.js** and **.NET**
- Improved Angular.js response time by **55%** by adding lazy loading, pure pipes, and caching values
- Implemented a new behavioral testing framework called **Cypress** into the frontend
- Automated continuous development of an IoT application in Balena cloud

Application Security Intern - Nelnet Inc.



Remote



May'20 - August'20

- Developed a custom **Metasploit** malware in **C#** that bypasses antivirus detection intended for company-wide phishing campaigns and red team engagements
- Carried out web penetration testing with **Burp Suite** to find web vulnerabilities
- Provided quality and assurance of the codebase and drafted best practices for company's internal tools in **ASP.NET**
- Contributed to DevSecOps initiatives through the building and integration of security unit tests into build pipelines

IT Security Analyst - Iowa State University



Ames, IA



August'19 - May'20

- Carried out web penetration for **300+** websites with **Burp Suite** vulnerability scanner
- Drafted reports to list findings, mitigation, and best practices
- Worked with developers to ensure vulnerabilities were addressed

Software Developer Intern, Spreetail Inc.



Lincoln, NE



May'19 - August'19

- Removed reliance on third-party dependencies by creating and integrating custom frontend features for the inventory tracking **Android** app
- Built REST APIs and wrote unit tests to add new functionality
- Rewrote frontend codebase from **Java** to **Kotlin** for concise and performant code



Projects

- Senior Design Project – Warehouse Drone:** Lead my team to develop a quadcopter to track inventory in a warehouse (**C, Java, JavaScript**)
- Independent Study - IoT Price Tag:** Worked under Professor Akhilesh Tyagi to develop a low powered IoT price-tag controlled wirelessly by a **MERN** stack web app for industry use (**C, JavaScript**)
- CS309 Final Project – Anonymous Discussion Post:** An **Android** and **Spring Boot** application intended for students to discuss controversial topics anonymously. Awarded the best backend developer in the class (**Java**)



Leadership

- President Cardinal Space Mining Club:** Built a mining robot and lead my team to NASA's Robotics Mining Competition 2019 and stood **4th** out of **46** college teams
- President IEEE Student Branch:** Arranged company recruiting seminars in the Electrical and Computer Engineering department for **400+** club members. Consulted the department chair on strengthening the undergraduate program