

# Nelson Josue Alvarez

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## Summary

As a software engineer with 5 years experience in back-end development, and proficient in Flutter, Java, Python, and C#. Successfully delivered multiple projects utilizing RESTful API design, Oracle 19 databases, CVE reports to reinforce recommended security practices and cross-platform application practices, resulting in improved scalability and performance for clients. Possess excellent communication and collaboration skills, able to work effectively with cross-functional teams and stakeholders in the medical industry to bring projects from conception to deployment.

## Technical Skills

- Proficiency in full-stack development with experience in languages such as Flutter, Python, Java, C++, and C#
- Capable in the understanding of integration with Azure services
- Experienced in managing & integrating Interfaces with EPIC to deliver patient information
- Adept in constructing builds, migrations, and patching alongside the management of Oracle 19C databases
- Practical experience with REST APIs, Kafka, and UNIX web development
- Accomplished in balancing front-end and back-end responsibilities to build efficient and scalable cross-platform mobile applications

## Education

**Capitol Technology University, Laurel, MD | Dean's List | Bachelor of Science in Computer Science**

**Relevant Coursework:** Design of Cloud Networks and services, Computer Algorithms, Advanced Machine Learning, Requirements and resource Analysis, Introduction to UNIX, Database Management, JavaScript, Computer Architecture, Intro to Network programming using C, Android Application Development

- Published *Crowdfunding Fraud Prevention with Smart Contracts* & worked on *Security Challenges: Metaverse the Coming Age of Technology*
- Developed a cross-platform mobile application named *Chargers Link* to improve academic material distribution utilizing Flutter.

## Apprenticeships/Internships

**Loccioni USA, Riverdale, MD, December 2022-Present Software Engineering Intern**

- Efforts in back-end development, server maintenance, and vulnerability resolution have led to an increase in productivity by 35%
- Utilized knowledge in C# to refine and maintain XSLT interfaces that delivered HL7 messages to Mirth interfaces
- Worked with subject matter experts to conduct server builds & server migrations for Oracle 19c databases within hospital-hosted networks
- Communicated with subject matter experts to implement solutions to resolve vulnerabilities in Mirth, FTP, and Oracle 19c
- Conducted back-end maintenance of the APOTECA chemotherapy compounding robot through interface changes, and troubleshooting

**KBR, Fulton, MD, June 2022 - August 2022 Software Engineering Intern**

- Created a reference implementation of an integration service using Azure Integration services and researched alternative integration patterns and technologies.
- Communicated with customers to design an integration architecture that meets their needs, considering present limitations and technical decisions.
- Acquired knowledge of Kafka and applied it by implementing listeners and transmitters to interface with other systems.
- Learned and applied concepts of Enterprise Application Integration such as Service Oriented Architecture and Event-Driven Architecture.
- Grew web application development skills by creating a simple FLASK Python application and learned the fundamentals of HTTP and REST APIs.

**Johns Hopkins Applied Physics Laboratory, Laurel, MD, June 2018 - August 2018 Apprentice (ASPIRE Program)**

- Software development as an apprentice for a software engineer, where knowledge of PYQT5 and OpenCV was acquired for a smaller-scale project in hopes of applying it to the big picture.
- This served as an introduction to programming and provided valuable practical experience in the software development process.

## Work Experience

**Capitol Technology University, Laurel, MD September 2022 - January 2023 Computer Svc CC Student**

- Collaborated with a team based in India to research a blockchain-based secure crowdfunding platform using Ethereum, Solidity, & Python. Contributed to the publication of *Crowdfunding Fraud Prevention using Smart Contracts*, advancing skills as a researcher and team collaborator.

**Capitol Technology University, Laurel, MD May 2021 - May 2022 Computer Svc CC Student**

- Developed skills in Machine Learning, Data Mining, and Data Analysis through personal projects and research. Attempted to publish *Security Challenges In The Metaverse and Its Impact On Technology*. Explored Neural Networks and Web 3.0 technologies in-depth.

**Jubilee Association of Maryland Inc, Kensington, MD May 2020-May 2020 Temporary IT Assistant**

- Developed a Ticketing system through the integration of Microsoft Sharepoint & Power Apps which increased productivity by 65%
- Configured 34 Windows laptops, and 8 mobile hotspots and tackled hardware troubleshooting during the distribution to communities that assisted those with special needs