Niles Mackinnon

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WORK EXPERIENCE   CLEARANCE:TS/SCI

Software Engineer - MITRE| Bedford, MA   *August 2021 – Current*
Engineering and technical guidance for the United States Air Force and DoD.

- Designed and developed a prototype for the Air Force demonstrating attribute-based access and data-tagging filtering solutions using **Java**, **postgreSQL**, **React**, and **Typescript**, which secured contract funding for next fiscal year
- Completed a tactical data message converter project using a Jess **Rules Engine**, **JSON**, and **Java**, resulting in a 50% reduction in processing time and establishing a reference for best practices for future DoD implementations
- Improved 5+ project's resource usage by fixing memory leaks, by implementing **Grafana** stream graphing and a **Redis** server to track real-time resource usage
- Utilized **JUnit** to implement unit and integration tests, ensuring code test coverage at a minimum of 90% across all projects
- Initiated meetings with enterprise leaders about distributed systems including cloud infrastructure vs on-premise, **SQL** and **NoSQL**, and competitive reviews of **AWS**, **Azure** and **Google Cloud**

Software Engineer - BottomLine Technologies| Portsmouth, NH   *April 2021 - August 2021*
Software to manage data in financial transactions within, and between banks.

- Collaborated with cross-functional teams of 4-8 engineers to develop applications in an Agile Scrum/Kanban setting, managing 3-5-week sprints, ensuring projects alignment with business needs.
- Utilized **SQL** queries to update customer databases, ensuring compliance and accuracy of customer information, transaction details, and other data fields.
- Debugged and optimized **C++** parser of company internal tools, resulting in improved performance and accuracy of customer account transactions
- Lead software development, direction, and design on an internal app for time-tracking and scaled it to 500 users, increasing participation from 75% to 90% by writing the front-end in **JavaScript**, **jQuery**, **CSS**, and **Bootstrap**

Software Engineer Intern -Texas Partners In Policy Making| San Antonio, TX   *April 2017 - December 2020*
Web Development UI contract work for TexasPartners.org and e-commerce.

- Built full-stack apps for demos and proof-of-concepts that increased the likelihood of a customer contract by 15% using **JavaScript ES6**, **React**, **Redux**, **Node.js**, and integrated with **REST APIs** from IBM Cloud products
- Designed the user-interface for the updated release of the company's website and implemented visualizations for user's revenue data

EDUCATION

Boston University,   *2022 - Expected 2024*
M.S. Software Development, GPA 3.6/4.0
Advanced Programming Techniques | Database Systems | Operating Systems | Machine Structures | Discrete Mathematics Statistics and Probability in Data Science | Computer Security | Technology Entrepreneurship |

Saint Mary's University,   *2017 - 2020*

B.A. Computer Science

AWS Academy Graduate,   *May 2023*

AWS Academy Cloud Foundations

Honors & Awards:

Full-Ride Scholarship: Nomination by Federal Congressman Lamar Smith, Chairman for Science, Space, and Technology   *July 2018*

Computer Science Symposium First Place Winner: Game Development Category at Saint Mary's University   *January 2017*

PROJECTS (GAMEPLAY ON YOUTUBE:HTTPS://WWW.YOUTUBE.COM/@NILESMAC2)

Dungeon Diving: Creator of a 2D PC game where player can rewind time that has garnered thousands of youtube views (**Unity**, **C#**)
Visual Novel: Designed Saint Mary's award-willing fully animated choose-your-own-adventure book style PC game (**Python**)

RELEVANT SKILLS

- Java | SAML | Kafka | Microservices | Node | SpringBoot | React | Databases | OAuth | CI/CD | HTML/CSS | Kubernetes | Docker | Git