

# CHARLES ALEXANDRE C. NORRIS

[cnorris7@gmu.edu](mailto:cnorris7@gmu.edu) | [linkedin.com/in/charlesanorris](https://www.linkedin.com/in/charlesanorris) | (571) 842-7904 | <https://charlesnorris509.github.io/Portfolio>

## SUMMARY

Software engineering student with practical experience in developing scalable three-tier applications. Proficient in database management, full-stack development, and cloud computing, with a strong background in code optimization, malware analysis, and web application quality assurance. Mr. Norris is eager to build and improve efficient applications while pushing the boundaries of what is possible with technology.

## EDUCATION

**George Mason University: College of Engineering and Computing** – Fairfax, VA

**Expected Graduation: May 2025**

Bachelor of Science, Information Technology

Concentration: Database Technology & Programming

**Dean's List Fall 2022**

Recipient of: George Mason Merit-based Undergraduate Scholarship awarding \$10,000/year

## EXPERIENCE

**Amazon NeXT x CodePath Scholar – CodePath**, Washington D.C

**Jun 2024 – Present**

- Selected in an intensive 10-week training, focusing on mastering algorithmic problem-solving and real-world coding challenges
- Work with Amazon engineers, gaining personalized mentorship and feedback on technical and behavioral interview skills
- Work with a diverse team to redesign Spotify's user experience for the older generation focusing on users with memory loss

**Teaching Assistant – George Mason University**, Fairfax County VA · Onsite

**Jan 2025 – Present**

- Collaborate with instructors to develop and refine course materials, ensuring accessibility and inclusivity for student body
- Facilitate peer-supported learning activities, fostering engagement in academic, cultural, and career exploration topics
- Provide mentoring and tutoring assisting students with course materials, university integration, and personal development

**Software Engineer Intern – College of Engineering and Computing - GMU**, Fairfax County VA

**May 2024 – Aug 2024.**

- Used agile framework to collaborate in a team to develop a web app that streamlined exam management for professors by 70%.
- Built and maintained the web application and backend services, ensuring seamless integration with the MySQL database
- Facilitated deployment processes, including CI/CD pipelines and cloud computing for reliable updates and performance
- Optimized database queries through code reviews improving efficiency by 15% while adhering to stringent requirements

## PROJECT

**Open-Source Contributions – Laravel, Buildbot**

**Oct 2024 - Present**

- Implemented a configurable database engine via the database configuration key, [allowing administrators to pass additional database parameters beyond the GCP infrastructure](#). Optimized changes for performance, security, and backward compatibility, ensuring seamless integration
- Resolved [Laravel 11 incompatibility with DigitalOcean Managed MySQL](#) by identifying query restrictions in the source code, recommending database migrations to AWS RDS, PostgreSQL, MariaDB, or Google Cloud SQL, along with configuration adjustment in config/database.php.

**DocsGPT – {Digital Ocean Hacktoberfest *OPEN-SOURCE CONTRIBUTOR*}**

**Oct 2024**

- Enhanced installation efficiency by refining Docker, Python dependencies and NPM packages configurations for streamlined deployment and maintenance of LLM applications. Created a custom Typescript plugin to integrate DocsGPT with GitLab, improving documentation workflows and collaborative AI-driven assistance

## PUBLICATIONS

**Academic Textbook Contributor – *Operating System Concepts***

*Publisher: Great River Learning / ISBN: 9781684784592*

- Credited in the Acknowledgements Contributor section for reviewing the educational materials *Operating System Concepts* under the direction of GMU Adjunct Professor James Holdener. The book is now required reading for undergraduates.

## SKILLS & CERTIFICATIONS

- **Programming Languages** : Java, Python, PHP, JavaScript, C#, NoSQL, MySQL
- **Development Frameworks**: React.js, Vue.js, Flask, Django
- **DevOps & CI/CD**: GitLab, Jenkins, GitHub Actions, Docker, Kubernetes, Buildbot
- **Performance Testing**: K6, Taurust, Locust
- **Security Testing**: Burp Suite, Metasploit, Linux Bash
- **Automated Testing**: JUnit, Pytest, Postman, Selenium
- **Certification**: AWS Certified Cloud Practitioner, Microsoft Certified: Power Platform Fundamentals

## ACHIEVEMENTS & ACTIVITIES

- **Google Developer Program**
- Member of Open-Source Organization – **CollabHub Frontend**