Sergius Justus Nyah

Buea, Cameroon

sergius.tech | github.com/Sergius-Nyah | sergiusnyah@gmail.com | linkedin.com/in/sergius-nyah

Education

University of Buea **Sep. 2022 – June 2025**

Bachelor of Science in Computer Science *Buea, Cameroon*

GPA: 3.50/4.00

Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming in C++, Differential, Difference, and Integral Calculus, Programming in C and Python, Computer Architecture.

Experience

FOSSASIA **January 2024 – March 2024**

Contract *Remote*

- Effectively deployed the openEuler open-source operating system in a virtualized environment, acquiring practical insights and a comprehensive understanding of its features and operations.
- Achieved mastery in navigating flow controls within RPM Linux package management, resulting in the proficient compilation of C code from an RPM package.

Amazon Web Services (AWS) **November 2023 – December 2023**

Open Source Developer *Remote*

- Enhanced application resilience and fault tolerance by implementing robust error handling mechanisms in python for scenarios like missing serviceuid and register API issues, ensuring a more reliable system operation.
- Enhanced codebase efficiency by refactoring malfunctioning code within the testfunction, replacing argument strings with Enumerations. This optimization led to a notable **10%** improvement in compile time.

CodePath **June 2023 – September 2023**

Intermediate Interview prep fellow *Remote*

- Delved into the intricacies of dynamic programming, applying its principles to optimize solutions for complex problems by decomposing them into more manageable subproblems.
- Innovated an algorithm optimization project that dramatically enhanced the efficiency of data sorting in hashtables, achieving a remarkable **50%** improvement.
- Gained experience in system design and a deeper understanding of scalability and architectural systems.

Projects

RayTracer | *HTML, CSS, JavaScript, Three.js, Google Material Design, Git, Github*

- Developed a sophisticated Raytracer project that simulates light to create 30+ 3D images with complex shading, shadows, reflection, and refraction.
- Implemented optimization techniques such as bounding volume hierarchies and multi-threading to notably enhance rendering times.

Virtual Machine | *C, Makefile, Git, Github*

- Developed a robust STACK-based Virtual Machine , capable of Arithmetic and Logic operations within the Operating system, demonstrating expertise in **system design** and software development.
- Incorporated advanced functionalities like dynamic resource allocation and automated system checks into the Virtual Machine project, demonstrating a commitment to innovation and efficiency.

T-Fever Simulation | *Python, Matplotlib, numpy, scipy, Git, Github*

- Created a Python simulation model using the SIR framework that uses Differential equations to mimic the spread of Typhoid fever, utilizing NumPy, SciPy, and Matplotlib for computation, equation solving, and data visualization.
- Engineered a sophisticated data extraction module in Python with advanced string manipulation techniques to parse crucial parameters from a text file efficiently.

Technical Skills

Languages:JavaScript, C, Python, C++ HTML/CSS, SQL, NoSQL
Technologies/Frameworks:Node.js, Express.js, React.js, MongoDB, Django, Bootstrap, Three.js, Matplotlib, Electron.
Developer Tools: VS Code, Github, Git, MySQL, pip, npm, MongoDB, pytest, Jest.

Awards

- Recognized as a **Top Global 50 contributor** in PullRequest Open Source for December 2023.
- Hacktoberfest Mentor and Coordinator - October 2023
- 2nd prize hackathon winner - Hack My City Challenge - November 2022