

Samuel Iwuchukwu

siwuchuk@ualberta.ca | 587-938-9791 | Edmonton AB | <https://unclesamtech.github.io/>

HIGHLIGHTS OF SKILLS

- Six years of software engineering experience acquired through the completion of a Master's thesis, a Bachelor's degree, and professional roles as a Software Engineer in both large enterprise and start-up environments.
- Advanced technical skills in developing resilient micro-services architecture leveraging C# and .NET Core.
- Demonstrated advanced research skills through scientific paper writing, data engineering, language modelling, and data science.
- Strong leadership skills gained from mentoring a team of 15 software engineering students to develop a robust Android application during my program at the University of Alberta.
- In-depth experience with hypothesis testing and applying deep learning models for predictive tasks and software development.

EDUCATION

MSc in Computing Science

University of Alberta, Edmonton, AB

B.Tech in Information Technology

Federal University of Technology, Owerri

RELEVANT WORK EXPERIENCE

Software Engineer

May 2025 - Present

ACQBuilt

- Enhanced ERP data import functionality by enabling seamless reading of both Excel (.xlsx) and CSV files, eliminating the need for manual conversions and reducing user error.
- Introduced version control by migrating the codebase to GitHub and implemented a CI/CD pipeline to automate unit testing for all new feature deployments, improving code readability and team collaboration.
- Resolved a critical bug in the multi-wall merging logic by modifying database queries and conditional checks to consider both Multiwall ID and height, ensuring accurate merging of walls and preventing structural data inconsistencies in the ERP system.
- Handled the redesign of the user interface of the ERP system by aligning different tabs.

Graduate Research and Teaching Assistant

Sep 2022 – April 2025

University of Alberta, Edmonton AB

- Extracted over 30k Scratch blobs from GitHub using Unix-based grep b2f command mapping for analyzing Scratch file revisions.
- Preprocessed and efficiently stored over 5k relevant Scratch3 projects and 2K+ Scratch3 revision files in SQLite3 extracted from GitHub using low-level Python scripts and Unix-based bash commands for quantitative analysis of

distribution of nodes and edges of Scratch3 files.

- Built a resilient parser with Python scripts to transform Scratch3 files into Abstract Syntax Trees (AST), providing an intermediary representation for easier understanding of Scratch3 files.
- Transformed a dataset of over 1K Scratch3 trees into n-gram models using path traversing from root to each node, enhancing the training of datasets on a language model.
- Utilized state-of-the-art language models like KenLM, nltk.lm and BiLSTM for next token prediction of Scratch3 files, leveraging TensorFlow and Python to infuse intelligence into an underserved software community
- Developed a .NET Core micro-service for the construction engineering department which bridged construction simulation from the symphony engine to a webpage leading to an increased clientele base.
- Managed over 15 undergraduate software engineering teams, mentoring 90 team members to successfully build Android applications following standard software development practices.
- Co-Authoring a scientific paper (An Empirical Study to Investigate Collaboration Among Developers in Open Source Software (OSS)) winning (MSR 2023 runner-up best paper challenge)

Software Engineer

Apr 2021– Aug 2022

Neolife International

- Developed a .NET Core micro-service to automate tax receipt generation by fetching order data from an SQL database, integrating with an external API to send data to the tax agency, and processing responses to upsert the data warehouse, achieving a latency reduction from 80% to 0.08% and improving data management efficiency.
- Implemented a secure and resilient payment gateway on our e-commerce platform using .NET MVC, integrating payment providers like InterPay, CashPay and KKiaPay for the Ghanaian, Togolese, and Kenyan markets, resulting in a 15% increase in order completion rates.
- Optimized payment integrations processing time through SQL query optimization and code refactoring, reducing error rates to 0.05% and increasing uptime to 99.7% across payment channels.
- Collaborated with Australian engineers to create a tracking software solution using .NET MVC and SQL, enhancing the order-tracking process.
- Deployed a real-time spooling system that retrieves customer reports from our S3 bucket data lake and displays them on a webpage using React and Vue.js, thereby accelerating decision-making for stakeholders.
- Implemented unit and integration tests across all health systems ensuring requirements are met

Software Engineer

Nov 2019 – Apr 2021

Lokdon

- Developed a subscription Software Development Kit to handle all the licensing of their encryption modules using Java thereby improving the subscription process for clients .
- Integrated UI Mockup designs into our Android application using Java, Android, and XML enabling a smoother user experience for our Android app users.

TECHNICAL SKILLS

- **Tech Stacks:** Python, C#, Java, VueJS, NodeJS, React.js, Javascript, XML, Android, Flutter, MySQL, Firebase, MongoDB, Postgres, Kotlin, Microsoft SQL, C++, Rust, [ASP.NET](#) MVC, EF Core, Microservice Architecture
- **Tools and IDE :** Android Studio, IntelliJ, NetBeans, Postman, VSCode, Swift,AWS, Azure, Git, GitHub, REST, API, CI/CD
- **Libraries and Frameworks:** NumPy, KenLM, NLTK, Pandas, transformers, tensorflow, keras, BiLSTM, BERT,QiSkIt