Abuno Waikhom

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PROFESSIONAL SUMMARY

Detail-oriented and collaborative software engineer with experience designing and deploying scalable, data-driven applications. Skilled in Object-Oriented Programming (OOP), Java, Python, and cloud-based development with AWS. Proficient in agile methodologies, writing unit/integration tests, and working across the full software development lifecycle. Proven problem-solver skilled in identifying inefficiencies and implementing automated, data-driven systems that improve speed, accuracy, and user experience.

EDUCATION

JSS Science and Technology University — Mysore, India
B.E Computer Science and Engineering — *2019 – 2023*

UNACCO SCHOOL — Manipur, India
CLASS XII — *2017 – 2019*

EXPERIENCE

Associate Software Engineer — Aug. 2023 – Oct. 2024
Strand Life Sciences — *Bengaluru, India*

- Built a centralized dashboard using Zoho Creator to solve fragmented access to sequencing data, improving data visibility and supporting better downstream analysis decisions.
- Engineered and optimized a bioinformatics pipeline using Nextflow, enhancing its scalability, execution efficiency, and modularity for large-scale genomic data processing.
- Automated manual bioinformatics tasks using Python, reducing data processing time by 60% and minimizing human error in repetitive workflows.
- Contributed to an agile software engineering team, participating in sprint planning, code reviews, and collaborative debugging while leveraging tools like Git, Docker, AWS Cloud9, and Linux.

PROJECTS

American Sign Language Identification

- Identified the lack of user-oriented datasets in ASL recognition and built a benchmark database using Python, improving model performance and supporting reproducible future research.

Captcha Cracking

- Completed a project that used machine learning and deep learning to automatically crack text CAPTCHAs, revealing their vulnerabilities as a security measure.

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, HTML/CSS, Deluge Script, Nextflow
Frameworks: Numpy, Pandas, Scikit-learn, Matplotlib, Node.js, OpenCV, Pytorch, Tensorflow
Developer Tools: Git, Docker, VS Code, Visual Studio, AWS Cloud 9, Linux, HPC, Zoho Creator
Soft-skills: Adaptability, Problem solving, Team player

PUBLICATIONS

DIPASL The Different Perspective ASL

- Addressed the gap in user-perspective datasets for ASL by co-authoring a research paper introducing DIPASL, a novel and user-centric approach to American Sign Language (ASL) recognition. The paper was published at the 2023 International Conference on Computational Intelligence, Networks and Security (ICCINS), Dec 2023. https://doi.org/10.1109/ICCINS58907.2023.10450026