

MANISSHA RAJEINDRAN

BIOMEDICAL ENGINEER

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SUMMARY

I am a fast learner, seeking a career change into the biomedical devices, biomechanics, and robotics field. I have a strong expertise in genomic research, and data analysis, with hands-on experience in sequencing technologies and computational biology. I am eager to apply my skills to new challenges and contribute to impactful innovations in healthcare technology.

PROFESSIONAL EXPERIENCE

Bioinformatician Level 1, Credence Genomics Holdings (Pvt) Ltd

Feb 2023 - Present

- Leading and mentoring a team of bioinformaticians and researchers, fostering innovation and skill development.
- Hands-on experience with Oxford Nanopore, Illumina, and Sanger sequencing, applying these methods in metagenomics, NIPT, and Whole Exome Sequencing.
- Developed bioinformatics algorithms for genomic data analysis, sequence alignment, and statistical modeling, alongside deploying, optimizing, and maintaining high-performance bare-metal servers.

Trainee Bioinformatician, Credence Genomics Holdings (Pvt) Ltd

Nov 2022 - Feb 2023

- Designed and implemented a custom LIMS using Flask (Python) to streamline sample tracking, data management, and reporting workflows.
- Built and deployed custom Galaxy tools tailored for genomics and metagenomics analysis pipelines.
- Experienced on working with Linux machines, VirtualBox environments, and MySQL servers during training, developing foundational system administration and database skills.

Engineering Instructor, Meulabs (Pvt) Ltd

Oct 2021 - Nov 2022

- Taught product design, IoT systems, and prototyping to students through practical, project-based learning.
- Mentored students on design thinking, problem-solving, and product development from concept to prototype.
- Conducted hands-on training sessions for kids in Arduino, C++, Python, and IoT product development.

EDUCATION

BEng. (Hons) in Biomedical Engineering

Nov 2018 - Sep 2022

Liverpool John Moores University affiliated by ICBT Campus, Sri Lanka

GCE Cambridge AS & A-Level

Graduated 2018

OKI International School, Wattala

PROJECTS & ACHIEVEMENTS

A novel mutation in the SLC2A1 gene presenting as persistent hypoproteinaemia and refractory iron deficiency anaemia due to chronic enteropathy: a case report

- Contributed as a co-author to a peer-reviewed article
- <https://doi.org/10.1186/s12887-024-05252-6>

Online LIMS Application

- Built interactive web forms for patient and sample registration with validation, using HTML, CSS, and Python (Flask).
- Developed auto-generated reports in tabular and visual formats, enabling clinicians and lab staff to access real-time performance and sample status.

Tool Development in Galaxy Platform

- Created Galaxy-compatible tool wrappers (XML) to define inputs, parameters, outputs, and execution logic.
- Integrated tools into multi-step Galaxy workflows for tasks.

ADDITIONAL INFORMATION

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- **Languages & Frameworks:** Python, CUDA, HTML/CSS, C++, Bash, MySQL, MATLAB, ROS
 - **Tools & Technologies:** Git, GitHub, Linux (Ubuntu), Raspberry Pi, TensorFlow, Flask, React, Fusion 360, CAD/PCB Designing.
 - **Other:** Fluent in English and Tamil

REFERENCES

Mr. Thulith Edirisinghe

Co-Founder, CEO at Meu Labs

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Mrs. N. Vidurshika

Biomedical Site Engineer

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