

Viruj Bala Soupramanien

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A mechanical and software engineer. I solve both real and virtual world problems.

WORK EXPERIENCE

- **Accenture Services Ltd** Mauritius
Application Development Associate Apr 2021 - Present
 - **Full Stack Developer:** Web and mobile app development using ASP.NET, Springboot and React Native
 - **Team Dev Environment:** Set up local custom development environment for the team using Docker and Unix scripting
 - **IoT Workshop:** Hosted workshop at the University of Mauritius on IoT devices, Azure Services and Power BI
 - **Eco Innovation Presenter:** Presented Master's thesis to global Accenture
- **Water Research** Mauritius
Project Coordinator Feb 2020 - Sept 2020
 - **International Operations:** Kick-started international operations in neighbouring island Reunion
 - **Digitizing Workflow:** Created Excel application using VBA to digitize foreman daily procedures
 - **Engineering:** Conducted geotechnical investigations and surveys
- **Air Mauritius Ltd** Mauritius
Mechanical Engineer Intern Dec 2018 - Feb 2019
 - **Air-frame and Mechanical Systems:** Training, processing documents & setting up aircraft maintenance tasks
 - **Wheels & Brakes Workshop:** Maintenance/repair of aircraft wheels and brakes
 - **NDT:** Non-destructive testing on aircraft
- **Hotel Istana KLCC** Malaysia
Engineering Intern Dec 2017 - Jan 2018
 - **Maintenance:** Routine maintenance of HVAC, electrical systems, cooling towers, pumps and plumbing system

CERTIFICATIONS

- **AWS Cloud Practitioner Certification:** Nov 2021 - Nov 2023

SKILLS SUMMARY

- **Languages:** English, French
- **Soft:** C#, JavaScript, Python, SQL, Java, HTML, CSS, Unix scripting, Matlab, PHP, VBA, Wolfram
- **Tools:** Docker, ASP.NET, Springboot, GIT, JS Frameworks, Arduino, Office, Solidworks, ANSYS, Simulink

PROJECTS

- **Leak Detection and Localization in Water Pipelines using an Ensemble Deep Learning Classification Model:**
Investigated and implemented an AI algorithm using python to detect and localize leaks in a water distribution network. The model was also trained to detect the pipe material transporting the water.
- **A Mathematical Modelling Study of the Effects of Air Expansion Inside the Brain on the Intracranial Pressure:**
Built a mathematical model in Matlab to simulate the effects of pressure and temperature on the intracranial pressure, due to expansion of trapped air in the brain.
- **Digitizing Daily Workflow:**
Developed an Excel app using VBA to facilitate foreman data logging. This helped increase productivity and decrease wait-time for engineers to receive data.
- **Warman Competition:**
Designed and built a robot to carry out a series of tasks. The robot was automated using an Arduino board.
- **Expense Tracker Mobile App:**
Built a mobile application using React Native to keep track of expenses. Used bio-metric authentication and google firestore to backup data. SQLite was used as the database.
- **Recipe App:**
Built a recipe web and desktop application using Solid JS and themealdb api. Tauri was used to build the desktop app.
- **Numerical study on the role of radiation view factor in thermal performance of straight fin heat sinks:**
Using wolfram, investigated the thermal performance of straight fin heat sinks.

EDUCATION

- **University of Mauritius** Mauritius
Masters in Applied Software Technologies Sept 2020 - Sept 2021
- **Monash University Malaysia** Malaysia
Bachelor of Mechanical Engineering (Honours) Oct 2015 - Oct 2019

OTHER EXPERIENCE

- **Thyme Out HQ** Malaysia
Cashier/Waiter *Apr 2017 - Oct 2017*
- **Monash University Volunteer Program** Malaysia
Focal Point *Mar 2016 - May 2016*
 - **Focal Point:** Managed a group of volunteers. Ensured punctuality and kept track of expenses
 - **Teacher:** Taught English and maths to kids
- **PAWS** Malaysia
Volunteer *June 2017 - July 2017*