# Kosma Inoj Akalanka

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## Education

University of Moratuwa

Bachelor of Science in Engineering (Honours)

Nov. 2016 – July 2021 Colombo, Sri Lanka

Richmond College

General Certificate of Education Advanced Level

Aug. 2013 – Aug. 2015

Galle, Sri Lanka

## Experience

Synopsys Inc

June 2021 – Present

Colombo, Sri Lanka

Research and Development Engineer II

- Working at ZeBu (FPGA based emulation platform) Product Engineering Operations and Analytics team.
- $\bullet \ \ Gained\ expertise\ in\ different\ components\ of\ {\bf ZeBu},\ {\bf Automations},\ {\bf Data}\ \ {\bf Analytics}\ \ {\bf and}\ \ {\bf Web}\ \ {\bf Development}.$
- Worked on novel, end-to-end, individual/team projects which improved quality and performance aspects of ZeBu. Also supported existing projects and **regression convergence** too.

LE Robotics Pvt Ltd

July 2019 - Dec. 2019

Research and Development Engineer - Intern

Colombo, Sri Lanka

- Worked on projects related to a middle scale industrial Robotic Arm Development.
- Gained expertise in Embedded Systems Development.

## **Projects**

Critical Benchmarks Analysis Report Generator | Bootstrap, JavaScript, PHP, Python, SQLite

June 2023

- An automation was essential to generate an email report which was done manually by ZeBu Backend Product Verification(PV) team.
- Developed a system with User Interface (UI) where anyone can submit a source excel sheet and generate the email report. It contained charts and tables which summarized findings from analyzing critical benchmark data.
- Utilized HTML, Bootstrap, CSS, JavaScript for UI Development and PHP, Python, SQLite, Jira API for Python, internal APIs to generate email report.

Fractal Branch Integration | Perforce, C++, Regression testing

April 2023

- Provided support for managing a new ZeBu branch where changelists from the release branch needs to be integrated and build manually.
- Managed an excel sheet, wiki page and teams channel where new builds' info were updated and announced.
- Utilized **Perforce** commands, **C**++ knowledge and **Regression testing** while integrating, resolving conflicts, building the executable and submitting changelists. Had to work with different component owners from different time-zones.

Quality Monitoring System (QMS) | HTML, CSS, Google Charts, Perl, Jira API

Oct. 2022

- A system which monitors benchmark quality was needed for some of the key projects in ZeBu.
- Developed a generalized system which contained a dashboard with analytics in the front-end and set of data-mining scripts and databases in the back-end.
- HTML, CSS, Bootstrap, JavaScript and Google Charts were used in the front-end. PHP, Python, Perl, Jira API, SQLite were used in the back-end.

### Technical Skills

Languages: Python, C++, C, C#, Perl, HTML, CSS, JavaScript, PHP, SQLite, csh, bash

Developer Tools: Unity, Blender, VS Code, Code Blocks, Visual Studio, Atmel Studio, MATLAB, Scilab, Vim, Jira

Technologies/Frameworks: Linux, Perforce, GitHub, Bootstrap, Symfony, Beautiful Soup, Latex

#### **Publications**

T. T. N. Bahavan, S. Navaratnarajah, D. Owinda, I. Akalanka, R. Peiris, and A. D. Silva, "Towards an objective measurement of presence, place illusion, and plausibility illusion in virtual reality using electroencephalography." Virtual Reality, 2023, doi: 10.1007/s10055-023-00815-x.

https://link.springer.com/article/10.1007/s10055-023-00815-x