Mehul V. Warade

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***Summary***

I am a Software Engineering Graduate with extensive experience in research, teamwork, and project management. Currently pursuing Doctorate in green distributed computing powered by AI at Deakin University. Project experiences include web/ application development, backend server management and full stack development. Demonstrated excellent leadership and teamwork skills with ability to develop strong relationships. Recipient of the Global Citizenship Award at Deakin University which is awarded to people who have demonstrated excellent people skills, communication skills, working in teams globally, etc.

***Work Experience Summary***

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| **June 2022 – present** | **Data Science RDBMS Tutor**  Deakin University, Melbourne.   * Teaching weekly study material and marking for workshop tutorials at Deakin University for SIT102/ SIT772 Database Fundamentals.   **Technology/Tools:** MySQL, Oracle, JavaScript, React, REST, HTML, CSS, Linux. |
| **October 2020 – February 2021** | **Research Assistant**  Deakin University, Melbourne.   * Conducted research in a green-house approach towards modern High-Performance Computing (HPC) using low-powered ARM based Single Board Computers.   **Technology/Tools:** JavaScript, Linux, GIT (source control), PHP, REST APIs, Docker, MySQL. |
| **June 2020 – August 2020** | **Embedded Software Engineer Intern**  Conran Innovations Pty. Ltd.   * Developed a high accuracy GPS data collection method in embedded systems to improve and automating the farming in Australia using Single Board Computers and robots. * **Technology/Tools:** HTML, REST API, JavaScript, Machine Language, GIT |
| **June 2020 – August 2020** | **Spark Deakin Ideation Program**  Deakin University, Melbourne   * Business oriented placement with the focus of developing one’s own business. Developed an E-commerce business called “The Fast Shop”. * **Technology/Tools:** HTML, CSS, JavaScript, API, GIT |
| **March 2020 – May 2020** | **Software Developer/ Web Developer Intern**  Links Project Group Pty. Ltd.   * Developed an automated data collection and analysis software for marketing and research purposes. * **Technology/Tools:** Python, HTML, JavaScript, MQTT, MariaDB. |
| **November 2019 – December 2019** | **DevOps Engineer Intern**  GMO Z. Com Vietnam Labs Center.   * IT Internship of one month working in a professional environment and development of a leave management software for the company. * **Technology/Tools:** YAML, Docker, VMs, Ansible, Vagrant |

***Skills***

* Web Development (**CSS, HTML, NodeJS, React, Angular and Php**).
* Strong in software programming languages such as **C++, C#, Java, Android Programming, MySQL database, Batch Programming, JavaScript and Python.**
* Tools/ Frameworks – **Visual Studio/ Code, XCode, Unity, Docker, SQL, Yii2 and GIT.**
* DevOps (**Ansible and Vagrant**).
* Proficient in remote server management of **Amazon Web Services** and game development in **Unity**.
* Strong base working with **embedded systems** and **clusters management**. Cluster development, computation and management using **Pegasus, Condor, MPI and Montage**.
* Management and development of software for embedded systems such as Raspberry-pi, Arduino, Photon, Odroid and Panda-Board.
* Strong programming, debugging and analyzing skills.

***Education and Training***

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| **July 2021 – Current** | **Doctor of Philosophy (PhD)**  Deakin University, Melbourne   * Currently completing my doctorate with full scholarship and stipend with the focus on Artificial Intelligence and Cluster Computing. |
| **June 2020 – July 2021** | **Honours in Software Engineering**  Deakin University, Melbourne   * Extensive research conducted with focus on developing a framework for evaluation of parallel algorithms on distributed systems. * Published a thesis and my first academic paper based on all the research conducted during the year. * Received second highest score in the class with 92% for the research and thesis. |
| **June 2017 – June 2020** | **Bachelor’s in software engineering**  Deakin University, Melbourne   * Achieved High Distinction (Average WAM: 88%). * Worked in teams to develop software and web applications. Focused on remote management in AWS with extensive knowledge in DevOps and Full stack Development. |

***Course Projects and Internships***

* **Honours Research:** Developed a platform-independent flexible framework for evaluation of different cluster configurations. The main focus was to analyze their performance as compared to their energy consumption.
* **IT Placement:** Developed an automated data collection and analysis software using python for marketing and research purposes. Also, worked with state-of-the-art embedded systems used in agricultural research. Researched and developed a web-software for visualization and analysis of big data collected by the robot.
* **IOT study Tour and Internship in Vietnam):** Collaborated with FPT University in Da Nang, Vietnam to develop a smart remote-controlled Arduino powered car with the obstacle detection system. Also, worked on Day Leave Management System for GMO Z. Com VNLabs in Vietnam as a DevOps Engineer.
* **Game Development in China**: Collaborated with students from Inner Mongolia University, China in developing a working arcade game in 2 weeks as a study abroad program. The game was presented, and our team “Shoreso Plan” received an HD grade in the study tour.
* **Developing Internet of Things:** Developed a fully functional robot which is controlled by a web page. This was developed as a group project with a group of three people. Secured HD in the unit.

***Research Paper and Publications***

1. Mehul Warade, Jean-Guy Schneider, and Kevin Lee. 2021. FEPAC: A Framework for Evaluating Parallel Algorithms on Cluster Architectures. In 2021 Australasian Computer Science Week Multiconference (ACSW '21), February 1–5, 2021, Dunedin, New Zealand. ACM, New York, NY.

***<https://dl.acm.org/doi/abs/10.1145/3437378.3444363>***

1. Warade, Mehul, Jean-Guy Schneider, and Kevin Lee. "Measuring the Energy and Performance of Scientific Workflows on Low-Power Clusters." Electronics 11, no. 11 (2022): 1801.

[***https://doi.org/10.3390/electronics11111801***](https://doi.org/10.3390/electronics11111801)

1. Warade, M., Schneider, J.G. and Lee, K., 2022, October. Towards Energy-aware Scheduling of Scientific Workflows. In 2022 International Conference on Green Energy, Computing and Sustainable Technology (GECOST) (pp. 93-98). IEEE.

[***https://doi.org/10.1109/GECOST55694.2022.10010634***](https://doi.org/10.1109/GECOST55694.2022.10010634)

1. Warade, M., Lee, K., Ranaweera, C. and Schneider, J.G., 2022, December. Energy Aware Adaptive Scheduling of Workflows. In 2022 IEEE Intl Conf on Parallel & Distributed Processing with Applications, Big Data & Cloud Computing, Sustainable Computing & Communications, Social Computing & Networking (ISPA/BDCloud/SocialCom/SustainCom) (pp. 562-570). IEEE.

[***https://doi.org/10.1109/ISPA-BDCloud-SocialCom-SustainCom57177.2022.00078***](https://doi.org/10.1109/ISPA-BDCloud-SocialCom-SustainCom57177.2022.00078)

1. Warade, M., Lee, K., Ranaweera, C. and Schneider, J.G., 2023, June. Monitoring the Energy Consumption of Docker Containers. In *2023 IEEE 47th Annual Computers, Software, and Applications Conference (COMPSAC)* (pp. 1703-1710). IEEE.

[**https://doi.org/10.1109/COMPSAC57700.2023.00263**](https://doi.org/10.1109/COMPSAC57700.2023.00263)

1. Warade, M., Lee, K., Ranaweera, C. and Schneider, J.G., 2023, May. Optimising workflow execution for energy consumption and performance. In *2023 IEEE/ACM 7th International Workshop on Green And Sustainable Software (GREENS)* (pp. 24-29). IEEE.

[**https://doi.org/10.1109/GREENS59328.2023.00011**](https://doi.org/10.1109/GREENS59328.2023.00011)

1. Energy and Scientific Workflows: Smart Scheduling and Execution, Journal of Information Science and Engineering, 2023

***Referees***

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