

HEIN KHANT ZAW

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Highly motivated recent graduate of Middlesex University with a BSc (Hons) IT. An experienced Full Stack Engineer with a strong background in creating interactive front-end components using React, Vue and in back-end development using Node JS, Django, Laravel. I am passionate about creating solutions for unique and complex business requirements.

LinkedIn: <https://www.linkedin.com/in/hein-khant-zaw/>

GitHub: <https://github.com/HeinKhantZaw/>

WORKING EXPERIENCE

RESEARCH SOFTWARE ENGINEER (INTERNSHIP)

Middlesex University

JULY 2024 – AUG 2024

- Conducted literature reviews on gamification tools, frameworks, and code generation approaches.
- Explored and developed solutions for generating skeleton code from gamification models.
- Developed solutions to extend existing gamification tools and applied gamification concepts such as points, badges, and leaderboards.

FULLSTACK DEVELOPER

EngineerForce | Remote

MAY 2022 – MAY 2024

- Developed internal applications using Python, JavaScript (ES6), Docker and AWS services (S3, Elastic Beanstalk, Cognito, EC2, etc.).
- Designed and built responsive front-end interfaces using React, managing states with Redux.
- Worked collaboratively in Agile Scrum teams to deliver internal applications, contributing innovative ideas to enhance the technical environment.
- Enhanced Django APIs using Django Rest Framework, increasing data processing efficiency.
- Implemented authentication and authorization using JSON Web Tokens (JWTs) to enhance security.
- E2E testing with Cypress, Jest (For React) and unit testing with Pytest (For Django).
- Integrated third-party services, including generative AI models, payment gateways, social media, and mail services.
- Completed complex coding tasks and provided thorough code reviews within each sprint cycles.
- Utilized Git and Gitlab for version control, ensuring effective collaboration and code quality.

WEB DEVELOPER

KBTC School of IT | Yangon

AUG 2021 – MAY 2022

- Developed student portal system using Laravel and React, resulting in 20% increase in user engagement and improved efficiency of accessing academic resources.
 - Created an efficient expense tracking system using Laravel, improving expense management for the company.
 - Collaborated with a team of 3 developers to develop and implement improved database designs, resulting in performance
 - Led the redesign of the company website, a user-friendly design that showcased the company's products and services.
 - Website deployment with Nginx and Apache.
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EDUCATION

INFORMATION TECHNOLOGY BSC (HONS)

Middlesex University

SEPT 2023 - JUNE 2024

- Relevant Coursework: Web-Based Mobile App Development, User Experience (UX) Design
- Graduated with First Class Honours
- Final Project: A web-based analysis tool using React to help system analysts for gamification of the software systems, i.e. incorporating gamification elements to enhance user engagement and motivation. Using this tool, a case study of "Gamification as a Tool against Post-Pandemic Student Stress" was explored and the poster related to this case study was presented in the prestigious Posters in Parliament event. Authored two scientific papers on the project (Further details are indicated at the end of the CV).

LEVEL 5 DIPLOMA, COMPUTING

NCC Education

JUNE 2022 - JUNE 2023

- Relevant Coursework: Dynamic Websites, Database Design and Development, Agile Development
- Achieved a Distinction mark of 76%.

BACHELOR OF COMPUTER SCIENCE

University of Information Technology

DEC 2017 - FEB 2021

- Relevant Coursework: Artificial Intelligence, Software Modelling and Analysis, OOP in C++ & Java

LEVEL 4 DIPLOMA, COMPUTING

NCC Education

JUNE 2017 — SEPT 2018

- Relevant Coursework: Designing and Developing OOP, Computer Systems and Development, Skills for Computing
- Achieved a Distinction mark of 72%

SKILLS

Technical Skills

- Languages: Javascript (React, Vue, Node JS, Vanilla JS), PHP (Laravel), Python (Django, Flask), Dart (Flutter), Java (JavaFX)
- CI/CD pipelines: Gitlab CI, GitHub Actions
- Database: MySQL, PostgreSQL, SQLite, MongoDB
- Development Tools: Git, GitHub, GitLab, AWS, Docker
- General Tools: Jira, Confluence, Grafana, Prometheus

Soft Skills

- Literature Reviews
 - Scientific Writing
 - Project Management
 - Problem Solving
 - Teamwork
 - Working under pressure
 - Time Management
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PROJECTS

WEB-AGON: GAMIFICATION ANALYSIS TOOL (REACT, JAVASCRIPT)

- Project conducted within Final Project of my BSc (for more information, please read the BSc info above)
- Features include user-friendly interface with an interactive diagramming using React Flow, futuristic UI using ARWES.
- Seamless state management with Redux for efficient handling of complex data interactions.
- Project URL: <https://web-agon.vercel.app/>

AFTER SCHOOL WEB-BASED MOBILE APP (VUE, JAVASCRIPT)

- A web-based mobile app to help students to order after-school lessons.
- Implemented features for browsing available lessons, filtering by category.
- Gained valuable experience in using Vue.js for building interactive web applications, working with Mongo for data management, and deploying applications on AWS.
- Project URL: <https://heinkhantzaw.github.io/CST3145-Coursework-1/>

MAJOR ADVISOR EXPERT SYSTEM (JAVA AND PROLOG)

- Developed a gamified expert system to recommend suitable academic majors to students based on their GPA and interest level in specific subjects.
- Utilised Prolog for the knowledge base and reasoning engine, and JavaFX for the user interface.
- Connected with JPL library to bridge communication between Java and Prolog.
- Project URL: https://github.com/HeinKhantZaw/JavaProlog_majorAdvisor

THE HAUNTED ASYLUM (UNREAL ENGINE, C++)

- Took part in Open Campus project show, collaborating with a team of 7 students to showcase a horror game developed in Unreal Engine 4.
- After attracting over 500 attendees, this project secured first place in best computer science project award, with the most votes the attendees and teachers.
- Project URL: <https://heinkhantzaw.itch.io/the-haunted-asyllum>

PUBLICATIONS

- H. K. Zaw, L. Piras “Model-Based Gamification Design with Web-Agon: An Automated Analysis Tool for Gamification” in International Conference on Software Engineering and Advanced Applications (SEAA) 2024. (Accepted)
- H. K. Zaw et. al “Agon: An Acceptance Requirements Framework for Analysis and Gamification” in International Conference on Advanced Information Systems Engineering (CAiSE) 2025. (Under Preparation with MDX Researchers)

POSTERS AND EVENTS

MIDDLESEX KNOWLEDGE INTO ACTION STUDENT SHOWCASE 2024

- <https://unihub.mdx.ac.uk/study/types/research-at-middlesex/knowledge-in-action-lab>

POSTERS IN PARLIAMENT 2024

- <https://www.mdx.ac.uk/news/2024/3/posters-in-parliament-event/>
- https://warwick.ac.uk/fac/cross_fac/iatl/student-research/pip/posters-in-parliament-2024-poster-gallery/