ASHLEY (YU-HSUAN) LU

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EDUCATION

University of Southern California August 2021-December 2023
Master of Science, Computer Science
USC Viterbi Engineering Scholarship for talented admitted students

- Relevant Coursework: Algorithms, System Design, Computer Network, Operating System, Web Search Engine, Artificial Intelligence, Machine Learning, Database, Game Development

National Taipei University of Technology September 2014-June 2018
Bachelor of Science, Industrial Engineering and Management
Academic Award: Earned Presidential Award (Top 5% of Class)

- Relevant Coursework: Cloud-based Computing, Database Management, Automation, Website Design, VR/AR

WORK EXPERIENCE

Machine Learning Engineer Intern, Quantitative Risk Management January 2023-August 2023
Shepherd Ventures, San Diego, CA

- Conducted web scraping of real-time data from multiple websites, and ensured accurate data retrieval via BeautifulSoup.
- Pre-processed and normalized collected dataset with Scikit-learn library, and built operational infrastructure and machine learning pipeline for quantitative model training, evaluation, testing, and deployment.
- Incorporated systems to track data through Long Short Term Memory and Recurrent Neural Network techniques.

Software Engineer, System Software August 2019-May 2021
Wistron Corporation, New Taipei, Taiwan

- Enhanced automation tools via batch scripting enabling auto-generation of tracking reports from databases.
- Maintained a robust testing environment, pioneering automated scripts, reducing manual test time by 15%.
- Collaborated with senior engineers and vendors in design and code reviews to manage system devices and BIOS errors.

Software Engineer, ERP System July 2018-July 2019
Top One Information, Taichung, Taiwan

- Conducted backend development of complex Enterprise Resource Planning (ERP) web and application.
- Researched user needs to establish roadmaps and determine efficient solutions and required functionalities while partnering with UI/UX team members in pioneering novel features to transform the user experience and improve features.
- Directed and built tailored features into ERP systems, enabling efficient data retrieval and calculation for inventory management, procurement, and manufacturing management using SQL.

ACADEMIC PROJECTS

Maze Game (C#, Unity, Git) June 2022-August 2022

- Transformed design specification into functional game algorithms and scalable code blocks via C# and Unity.
- Addressed bugs, resolved code merge conflicts, designed game levels, directed testing with C# scripts and Git.
- Devised UI/UX features, and assessed user feedback through C# scripts and data analytics to maximize usability, and construct an immersive user experience.

Athena Hackathon (Python Flask, Azure, HTML, CSS, JavaScript, Git) February 2022

- Led full-stack design and development of an interactive, mobile-friendly web application, integrating features such as combined chatbot, map integration, autocomplete, searching, and saved lists features.
- Implemented frontend of website using HTML features for enhanced user experience.
- Designed backend using Python Flask and integrated multiple APIs, including Google Maps for expanded functionality.
- Deployed web application on AWS, ensuring scalability and high availability.

Minesweeper Game Application (Java, Java GUI) October 2021

- Utilized system design skills to code, test, create the GUI, and release interactive Minesweeper Game application via Java.

SKILLS

Skills: Java, Python, C#, C/C++, Golang, Git, TypeScript, JavaScript, HTML, CSS, Bootstrap, JQuery, React, Python Flask, Node.js, SQL, MySQL, Postgres, .NET, Unity, Kubernetes, Linux, bash, Script, Selenium
Areas: Web Development, UI/UX, Full-Stack Development, Object-Oriented Programming, RESTful APIs, DevOps, Distributed Systems, Quality Assurance, Testing, Machine Learning, Artificial Intelligence, Agile Methodology, SDLC Methodology