Yen-Jung Chen

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EDUCATION

Purdue University West Lafayette, IN

Bachelor of Science in Computer Engineering May 2024

Relevant Courses: Machine Learning, Operating Systems Engineering, Data Structures, Python for Data Science, Object Oriented Programming with C++, Software for Embedded System, Microprocessor Systems and Interfacing

SKILLS

- Programing Languages: C, C++, Python, MicroPython
- Platforms: GitHub, Linux
- Methods: Agile Software Development, Test-Driven Development

EXPERIENCE

Artificial Intelligence Software Engineer Intern Taipei, Taiwan

PEGATRON Corporation June 2023 - August 2023

- Spearheaded a project dedicated to enhancing defect detection within the production line. Implemented training-based methodologies and introduced visual prompt AI techniques to improve efficiency.
- Developed a user-friendly and interactive webpage for effortless model performance comparison. Integrated matrices such as Intersection over Union (IoU) and mean average precision (mAP), provide an intuitive platform for users to assess and select the most suitable models.
- Successfully deployed SegGPT to facilitate visual prompt methodology. Empowered users to generate, save, and compare AI models based on their specified prompts, streamlining the model selection process for diverse use cases.
- Utilized extensive datasets and pre-trained models within Pegatron's AI platform - Cambrian, contributing to the refinement and fine-tuning of AI models.
- Demonstrated proficiency in project management within a collaborative team environment. Utilized industry-standard tools such as Git, embraced test-driven development practices, and applied Agile methodologies to ensure streamlined development processes and successful project delivery.
- Awarded Best Group Project at the end of the internship.

Senior Design Project: Large Language Model for Medical Diagnosis West Lafayette, IN

Project Leader September 2023 - Present

- Fine-tuned a pre trained large language model from Meta–LLaMA to assist doctors and potentially patients in determining the appropriate description or treatment method for their symptoms based on uploaded medical records datasets.
- Led the team with Agile methodologies, resulting in becoming one of the most attractive groups in the exposition. Successfully showcased the team's achievements and contributions, garnering attention and recognition.

Senior Design Project: Deep Reinforcement Learning Autonomous Drone West Lafayette, IN

Project Leader January 2024 - Present

- Implemented Deep Reinforcement Learning algorithms for autonomous navigation of drones in Microsoft’s AirSim environment.
- Tested various network architectures, activation functions, and reward functions to optimize performance. Demonstrated potential applications in search and rescue missions, surveillance, and environmental monitoring.

Project: Smart Locker West Lafayette, IN

Project Member September 2020 - November 2020

- Led the implementation of cutting-edge machine learning techniques, specifically utilizing OpenCV, to enable facial recognition for secure access to the smart locker system.
- Developed and managed a MySQL database to store and retrieve customer facial photos, personal details, and package information, ensuring a seamless and secure user experience.
- Spearheaded the integration of Raspberry Pi microcomputer technology, creating a barrier-free and user-friendly smart locker system that significantly improved accessibility for users with diverse needs.
- Collaborated closely with team members to ensure the successful integration of hardware and software components, resulting in a fully functional and reliable smart locker prototype within the project timeline.