

Krerkkiat Chusap

<https://kchusap.com> | <https://github.com/krerkkiat>

EDUCATION

- Ph.D. in Electrical Engineering and Computer Science: GPA 3.37 (4.0 scale) August 2019 - Present
Ohio University, Athens, OH, USA
Topic: Robustness of Reinforcement Learning (RL) algorithms
- B.S. in Electrical Engineering with Computer Engineering Track: GPA 3.89 (4.0 scale) May 2019
Ohio University, Athens, OH, USA
Scholarship: One District One Scholarship (ODOS) from the Government of Thailand

RESEARCH INTERESTS

Investigation of the robustness of reinforcement learning. Applying neuromorphic computing, spiking neural network for game-playing AIs.

PUBLICATION

- Chusap, K., & Liu, C. (2024). Gauging tech community acceptance of rapid prototyping in unfamiliar programming languages using LLM chatbots. *Proceedings of the 1st International Workshop on Large Language Models for Code*, 8–13. <https://doi.org/10.1145/3643795.3648393>
- Kusolpuchong, S., Chusap, K., Alhawari, O., & Suer, G. (2019). A genetic algorithm approach for multi objective cross dock scheduling in supply chains [25th International Conference on Production Research Manufacturing Innovation: Cyber Physical Manufacturing August 9-14, 2019 — Chicago, Illinois (USA)]. *Procedia Manufacturing*, 39, 1139–1148. <https://doi.org/https://doi.org/10.1016/j.promfg.2020.01.356>

WORK EXPERIENCE

Research Assistant, Ohio University, OH, USA

January 2025 - May 2025

- Designed an ontology
- Restored a Python package, ontologysim, to a working order
- Set up Ollama and OpenWebUI using Docker Compose
- Set up and maintained a TLS/SSL certificate using Let's Encrypt
- Set up and maintained dynamic DNS entry with Cloudflare

Teaching Assistant, Ohio University, OH, USA

August 2022 - December 2024

- Prepared and graded homework assignments for CS 3560 - Software Engineering Tools and Practices
- Created a command line tool to interact with Blackboard's, Canvas', and GitHub's APIs
- Developed a REST endpoint using Google Cloud Functions
- Developed a Python-based framework for creating assignment that can be automatically graded
- Set up a CI/CD pipeline for testing and publishing a Python package to PyPI

Teaching Assistant, Ohio University, OH, USA

August 2019 - May 2021

- Prepared and graded homework assignments for CS 3560 - Software Engineering Tools and Practices

Grading Assistant, Ohio University, OH, USA

January 2019 - May 2019

- Grading for CS 4000 - Introduction to Distributed, Parallel, and Web-Centric Computing
- Developed a framework for giving feedback using Python, LaTeX, and Jinja2 templating language

Student Research Assistant, Ohio University, OH, USA

May 2018 - November 2018

- Conducted a usability analysis for a web application
- Organized a usability testing and reported the result

OTHER WORK EXPERIENCE

System Administrator, Ohio University, OH, USA

August 2019 - Present

- Created, maintained, and deactivated user accounts on GNU Linux systems in a research laboratory
- Kept GNU Linux systems up-to-date and responded to known security vulnerabilities
- Maintained a dynamic DNS entry for a remote access of the servers

Web Developer, EI Team, Thailand

June 2019 - December 2019

- Developed a web application using Python, Django

Student Web Developer, Ohio University, OH, USA

May 2017 - January 2018

- Administered a server for research in the professor's lab.
- Joined the team's effort to build a web application for donation management system for disaster situation using Python and Django
- Won the IEEE Global Humanitarian Technology Conference (GHTC) Solution Challenge in 2017

SKILLSET

Software and Technical

- Proficient in software and library development using Python
- Working knowledge of modern C++ (C++23)
- Working knowledge of various programming languages (Rust, Haskell, C#, Kotlin)
- Working knowledge of web application development with Python, and database systems
- Functional knowledge and understanding of cloud service providers (GCP, AWS, DigitalOcean)
- Experienced in containerization technology (docker, podman)
- Working knowledge of Git
- Working knowledge of general programming using MATLAB
- Working knowledge of Optimization Programming Language (OPL) using CPLEX IDE
- Basic understanding of continuous deployment with Jenkins
- Proficient in MS Word, Excel, Powerpoint

Soft Skills

- Analytical and problem-solving skills
- Team player
- Active listening skills
- Attention to detail

PROJECTS

- An application that convert Google Form submissions to Google Docs for COTS 2021. Source code available via Github
- A CI/CD pipeline using Jenkins (on Digital Ocean server with Nginx as a proxy) to compile and deploy this resume to my personal web page on a school's server
- Built Checker game using C++ as a course's project. This project is utilizing the Object-Oriented programming concept. The AI to simulate the opponent for the player is base on the book version

PROFESSIONAL DEVELOPMENT ACTIVITIES

- Worked with graduate students to develop a simulation of cross-dock's operation to calculate fitness function for genetic algorithms. Orchestrated the experiments across multiple EC2 instances on AWS. Helped revise CPLEX's Optimization Programming Language (OPL) source code.
- Created Python based application for processing data set into MLN for the team competing in 2018 RevolutionUC hackathon
- Joined a team effort to compete in 2018 BSIC Decentralized Impact Incubator Hackathon

HONORS AND ACTIVITIES

- Placed top 21 out of 631 teams from 20 countries in 2020 Smio Student Case Competition
- Student member of Association for Computing Machinery (ACM)
- Outstanding Junior in Computer Engineering (April 2018)
- Four semesters on Dean's list while pursuing an undergraduate degree.
- President of Thai Student Association at Ohio University (Mar 2017 - January 2019)
- Received One District One Scholarship (ODOS) from Government of Thailand (2014 - 2019)