

Jacky Lin

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EDUCATION

University of Kansas

Bachelor of Science in Computer Science

GPA: 3.97/4.0

Lawrence, KS

Aug 2020 – May 2024

WORK EXPERIENCE

Undergraduate Research Assistant

May 2023 – August 2023

National Science Foundation, University of Kansas

Lawrence, KS

- Implemented a variation of the Viterbi algorithm in C++ for comparing protein families represented as Profile Hidden Markov Models
- Devised and automated data preprocessing and analysis workflows using a combination of Python & Bash scripts
- Performed benchmarking assessments against industry-standard tools such as BLAST and HMMER, successfully reducing runtime by 67%

Meta Production Engineer Fellow

June 2022 – Aug 2022

Major League Hacking

- Created an open-source personal portfolio website using Python, Flask, Jinja, MySQL, Nginx, and unit testing in a Linux and cloud environment
- Established system/container monitoring, alerting, and visualization using Docker, Prometheus, and Grafana to track critical metrics such as CPU, Memory, and Network usage, and integrated Slack for real-time alert messages on high system loads
- Automated testing and deployment workflows using Continuous Integration/Continuous Deployment when merging changes into the main branch through GitHub Actions

PROJECTS

Monkey Bar Mayhem

- Contributed to all stages of the Software Development Life Cycle (SDLC) using Agile methodology, leveraging Jira to streamline workflow management, resulting in the successful development of a 2D platformer game in Unity C#
- Designed and implemented intricate game mechanics encompassing player movement, precise collision detection, seamless game transitions, and robust endgame detection

Job Search Database Project

- Designed a database schema depicted with an Entity Relationship Diagram, featuring tables for users, job seekers, employers, and jobs, implemented on a MySQL server in a team of 3
- Facilitated interaction from user interface to database, such as creating new user, creating new job listings, modifying data, and applying to jobs through PHP
- Implemented different pages for general user (job seeker) and admin user (employer), with employers posting job information and job seekers applying to jobs posted by employers

PokeNFT – Hack Midwest 2023

- Leveraged Socket.IO into a React.js frontend application, establishing and managing WebSocket connections with the Express.js server for seamless real-time communication in a two player turn based game
- Deployed smart contracts on Remix and minted NFTs on Base using Pinata

Chess-to-go – HackKU 2023 Winner for Most Creative Use of Twilio

- Contributed to chess board preprocessing and grid detection using Python OpenCV
- Trained a YOLOv5 machine learning model with an original dataset through Roboflow to detect chess pieces on the board

SKILLS & ACTIVITIES

- **Technical Skills:** C++, Python, SQL, Flask, JavaScript, GitHub, Linux, PHP, Docker
- **Clubs:** Association for Computing Machinery, Upsilon Pi Epsilon, The Society of Asian Scientists and Engineers