

 <https://portfolio-ken1009us.vercel.app>

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# SHU-HAO WU

Champaign, IL

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## WORK EXPERIENCE

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### Software Engineering Intern

**PhysIQ** (Python, JavaScript, Node.js, Kotlin, YAML, GitLab, Shell Script, Kubernetes).

May 2022 – present

- Improved compatibility and efficiency by 20%: Coded **Python** noxfile to replace makefile for utilizing varying nox sessions for building environment
- Accelerated CI runtime by 25%: Engineered **YAML** to combine nox with **CI** jobs for improving shell-based testing
- Optimized data querying: Built **Python** functions for **JSON** pipeline and produced test files for output checks
- Solved validation issues: Programmed **Kotlin** function to generate test case in **RESTful API** repository
- Boosted productivity: Developed a responsive **Slack bot** using **JavaScript** and **Node.js** for instant employee support

### Backend Engineering Intern

**Pondy Education Inc.** (Python, TensorFlow, SQL, Django)

July 2020 – March 2021

- Upgraded data processor: Migrated **SQL**-based to **Django**'s ORM module for better performance
- Enhanced audio model: Programmed **Python** function to crawl 20,000 mp3 files for text-to-speech processing
- Streamlined news collection: Devised **web crawler** to gather articles across categories
- Advanced AI training: Executed **deep learning** model to teach 15 article categories interpretation and identification

## TECHNICAL SKILLS

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**Languages & Frameworks:** Python, SQL, Kotlin, Java, Django, Flask, HTML, CSS, JavaScript, React, Express

**Tools & Databases:** Git, MySQL, SQLite, MongoDB, Neo4j, GCP, Linux, Docker

## EDUCATION & SCHOLARSHIP

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**University of Illinois at Urbana Champaign (UIUC), IL**

August 2021 – May 2023

Master of Science in Information Management

**Coursework:** Database Systems; Information Modeling; Data, Statistical Models, and Information;

Computer Network; Foundations of Information Processing; Programming for Analytics & Data Processing

**Chung Cheng Scholarship, Chung Cheng Scholarship Foundation: US\$260**

March 2018

## PROJECT

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**Hungry Snake** (Skills: Java, OOP)

March 2023

- Designed and implemented game logic, including Graphical user interface, snake movement, food generation, collision detection, and score tracking
- Utilized Java Swing for creating user interfaces, including game panel and scoreboards

**Group Buy** (Skills: ER Diagram, Relational Schema, SQL, GCP)

May 2022

- Directed team to customize **ER diagram** and improve communication for user satisfaction to **design database**
- Constructed database on **GCP** with **MySQL** and collaborated to build 6 tables, including USER, POST, CATEGORY, GROUP, LEADER, PAYMENT to resolve shopping issue
- Bolstered database integrity by adopting **transaction** and **trigger** to prevent breakdowns, duplicates, and invalid data

**Newsflow, HackIllinois** (Skills: Python, Dash, JSON, API)

February 2022

- Leveraged **Python Dash framework** to fabricate dynamic **web apps** integrating **News API** and **Twitter API**
- Facilitated user engagement by implementing trending news display and **search functionality** for specific articles and countries

**Hotel Reservation Application** (Skills: Java, OOP)

January 2022

- Executed **Object-Oriented Programming** in **Java**, creating robust class designs for efficient code
- Designed a room availability system, enabling users to effortlessly locate and book hotel rooms

**Meteorite visualization** (Skills: Python, Numpy, JavaScript, HTML, Jupyter Notebook)

December 2021

- Guided team to create 13 meteorite-landing **visualizations**, conveying landing patterns and trends
- Analyzed data using **Pandas** and **Matplotlib**, creating deployable **JavaScript** and **HTML** code via **GitHub**

**Draw something** (Skills: Python, Flask, HTML, CSS,)

July 2021

- Launched a website with **Python Flask** framework and **HTML**, offering users an artistic outlet
- Established a **registration system** enabling seamless user authentication and password changes

## EXTRACURRICULAR ACTIVITIES

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Attendee, **HackIllinois 2022**, UIUC, IL

February 2022 – March 2022