

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

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# SHU-HAO WU

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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

- Replaced **makefile** with **noxfile** by using **Python**; Improved system compatibility by calling different nox sessions for the usability of tasks for research team; Eliminated runtime of building environment by 20%
- Programmed **YAML** file to integrate **CI** jobs with nox; Improved shell-based testing and reduced CI runtime by 25%
- Constructed **Python** functions to query some data through **JSON pipeline**; Generated test files to check the output
- Solved validation issue and created test function in rest-api repository by programming **Kotlin** function
- Created a Slack bot using **JavaScript** and **Node.js** to instantly respond to questions from employees and save time

### Backend Engineering Intern

**Pondy Education Inc.** (Python, TensorFlow, SQL, Django) July 2020 – March 2021

- Migrated existing **SQL-based** data processor to **Django's** Object-Relational Mapper (ORM) module
- Wrote a **Python** function to crawl about 20,000 mp3 audio files to run text-to-speech model
- Built a function with a **Python** open source tool - ProxyBroker to avoid being banned by the website
- Established a web crawler to crawl news articles across different categories
- Operated a **deep learning** model for training AI to interpret and identify 15 article categories

## 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 – present

Master of Science in Information Management

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

**Chung Cheng Scholarship, Chung Cheng Scholarship Foundation:** US\$260 March 2018

## PROJECT

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**Group Buy** (Skills: ER Diagram, Relational Schema, SQL, GCP) May 2022

- Led a team to design a database by keeping adjusting the **ER diagram** and communications to meet user's needs
- Collaborated with teammates to build the database with five tables, including USER, POST, CATEGORY, GROUP, LEADER, PAYMENT, using **Google Cloud Platform (GCP)** and **MySQL Workbench** to solve the shopping issue
- Created transaction and trigger to protect the database from breaking down, recording duplicate information or inserting invalid values

**Newsflow, HackIllinois** (Skills: Python, Dash, JSON, API) February 2022

- Adopted **Python Dash framework** and implemented **News API** and **Twitter API** to develop reactive web apps
- Displayed the trending news and a search bar for users to type any word regarding desired articles and countries

**Hotel Reservation Application** (Skills: Java, OOP) January 2022

- Demonstrated abilities to design classes with **Java** types and **Object-oriented programming (OOP)** concept
- Designed a system to let users find and book a hotel room based on room availability

**Meteorite visualization** (Skills: Python, Numpy, JavaScript, HTML, Jupyter Notebook) December 2021

- Consolidated a group to produce 13 various visualizations to explore the dataset of meteorite landing history
- Analyzed data by operating **Pandas** and **Matplotlib**, and wrote **JavaScript** and **HTML** to deploy through **GitHub**

**Draw something** (Skills: Python, Flask, HTML, CSS,) July 2021

- Established a website with **Python Flask framework** and **HTML** to let users draw anything on website
- Designed a registration system to let users log in or change passwords

## CERTIFICATES

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CS50's Introduction to Computer Science (Harvard University online course - edX)

June 2021

Python Data Structures (Coursera)

April 2020

## EXTRACURRICULAR ACTIVITIES

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

February 2022 – March 2022