Yi-Shan Wu

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PRACTICAL SKILLS
Languages: Chinese (native), English (Duolingo 105, 2022/09)
Programming: HTML, CSS, Java, JavaScript, Python, C++, Arduino
Computer: Google App Script, AWS, Power BI, Raspberry Pi 3, Adobe Photoshop

EDUCATION
University of Alabama at Birmingham (UAB), Birmingham, AL, USA
2023/01 – 2024/12: **Master of Computer Science (to be transferred)**

National Taiwan University, Taipei City, Taiwan
2017/09 – 2019/11: **Graduate Major: Pathology (withdrawn)**

Chang Gung University, Taoyuan City, Taiwan
2013/09 – 2017/06: **Bachelor of Science in Biomedical Sciences**

PROJECTS
2023/12: 0/1 Knapsack Optimization (Dynamic Programming)
- Employed **dynamic programmin**g to solve the 0/1 Knapsack problem efficiently.
- Conducted **comparisons** between excluding and including each item to determine optimal outcomes
- Implemented a table to store **optimal solutions for subproblems,** ensuring efficiency in the overall process
- Developed a trace-back mechanism to identify selected items and their inclusion status

2023/12: Binary Search Tree Implementation
- **Object-oriented** programming
- Developed a Binary Search Tree using a **'Node' class** for parent-child relationships
- Executed node insertion, deletion, and introduced successor and predecessor functions

2023/11: CUDA on Colab GPU
- Implemented **SapBERT** pretrained model on **Colab GPU**
- Enhanced performance using **CUDA** optimization

2023/11: Drug2Vec - Leveraging **PubMedBERT** for Drug Pair Co-mention
- Utilized PubMedBERT to identify co-mentions of drug pairs
- Leveraged **DrugBank** to obtain information on the target genes that drugs specifically act on
- Mapped drug relationships by correlating target genes, providing an alternative solution for doctors and patients
- This approach enables a comprehensive understanding of drug interactions, synergies and their mechanisms, offering valuable insights for healthcare professionals

2023/10: Real-time streaming data pipeline (Kafka & Docker)
- Designed and implement a Kafka consumer and producer in Python

- Created container and image under the service of Docker to package the environment and implement description

2023/09 – Present: **Portfolio website** (https://www.anniewu-tw.com/)
- Integrated Python Flask to handle dynamic content generation and server-side operations
- Utilized JavaScript and CSS on HTML to design an interactive and visually appealing user interface

2023/08 – Present: **LikeCode website** (https://www.likecode.org/)
- 2023/08 – 2023/09: Developed a website with **Flask** and published on my own domain
- Built a database with **SQLAlchemy** to practice the user login system and to meditate the LeetCode website
- Produced **base.html** to control all the headers, footers, and navigators to make maintenance easier
- Implemented **jQuery** and **Bootstrap** to enrich **CSS** and **JavaScript** designs
- 2023/09 – Present: Deployed website and carry out ongoing website maintenance for updated information.

2021/07 – 2021/08: **AWS Cloud Internet of Things**
- Implemented an **Arduino UNO** program with Python on Raspberry Pi3
- To make specific spot alert and SNS alert practical, **AWS IoT Core** and **Rule Engine** were used to make **AWS IoT Events** send emails and **DynamoDB** to store data
- Presented data on the website or connect with a safety guidance company to facilitate monitoring and rescuing

WORK EXPERIENCE
University of Alabama at Birmingham, Birmingham, AL, USA
2023/08: **Volunteer of Orientation Team**
- Assisted international students with following orientation schedule
- Helped new students with inquiries by signposting them to relevant departments or resources

2023/06 – Present: **Operations Attendant** in Recreation Center
- Ensure safety and cleanliness of entire facility (e.g. trash, restrooms, walkways, floors, windows, laundry) and issue recreational equipment (e.g. basketballs, weight belts, towels)
- Communicate with the Facility Supervisor, Professional Staff and Coordinator of Facility Operations to complete tasks as requested
- Monitor all student and member check-ins to the facility, log lost and found items
- Setup/breakdown for rentals and special events as needed, make announcements in emergencies and at closing
- Attend all staff trainings and meetings

FLOW Inc., Taipei, Taiwan
2021/01 – 2021/04: **Data Design Specialist**
2019/07 – 2020/12: **Operation Planner**
- Used Google Apps Script to produce operational data and optimized team's work flow through automation
- Defined and presented data on team's work assignment, content, performance for manager in

weekly online reports using Power BI
- Designed and drafted team's work SOPs
- Created product requirement document to find suitable workers for clients' projects (+- 9 projects per week)

2018/11 – 2019/06: **Intern**
- QC team: calculated production yield of annotators using Google Sheets for QC manager to review, provided support to manager where needed
- R&D team: used Scrum to list client tasks in order of priority for engineers every week
- Support team: worked with social workers in Employee Assistance Program, IT support, and conducted home visits with occupational therapist to provide support where needed; used Google Apps Script to enhance data operation
- Business Development team: assisted in planning client development conference (https://topic.cw.com.tw/event/2019flow/index.html) for external AI engineers and senior managers