YUN CHEN

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EDUCATION

Stony Brook University – SUNY **Stony Brook, NY**
Master of Science in Computer Engineering **Sep 2021 - May 2023**
- *NSF Graduate Research Fellowship Program*

National Cheng Kung University **Tainan, Taiwan**
Master of Science in Mechanical Engineering | GPA: 3.8 **Aug 2016 - May 2018**

WORK EXPERIENCE

Graphen, Inc **New York, NY**
Data Science Intern (Full-Time) **May 2022 - Dec 2022**
- Engaged in machine learning research on Deep Video Understanding, taking a primary role in full-stack development of data visualization and analysis.
- Enhanced character relationship prediction accuracy in movies by approximately 21% through the integration of multiple scene frame extraction and optimized frame number range selection for improved accuracy.
- Matched 100K+ prediction results with timestamps and accuracy, yielding 5K+ data points. Then, utilized ETL to generate JSON files and deployed a Flask backend for data extraction, ultimately using Bootstrap.js and D3.js to visualize role relationships in a knowledge graph.

Delta Electronics, Inc **Taoyuan, Taiwan**
Sr. Mechanical Design Engineer **Oct 2018 - Mar 2021**
- Utilized SolidWorks to design products for telecommunications companies including Verizon, AT&T, and Docomo.
- Developed a screw-type integrated system reduce the overall screw types of the department by nearly 40%.

PROJECTS

Coffee Shop E-commerce Website Dev Pogods | *Python, JavaScript, Docker, S3, EC2, MongoDB* **July 2023 - Aug 2023**
- ***Front-end:*** Enhanced user experience with React.js on Amazon S3 for user-friendly front-end components, including dynamic product listings, one-click add to cart, and member authentication.
- ***Backend:*** Utilized Flask on Amazon EC2 for seamless system integration, including order completion, membership database, and inventory control. Implemented security groups for inbound traffic control.
- ***Database:*** Utilized MongoDB Atlas for secure customer(membership) data storage, order creation, and product information management, ensuring both security and scalability for the database.
- ***Container:*** Implemented Docker to containerize front-end and backend, ensuring consistent deployment across environments to simplify the deployment process, minimize compatibility issues and enhance scalability.

Fast-Food Chains Analysis: Ranking Prediction & Store Mapping 🔗 | *Python, Tableau* **Apr 2023 - May 2023**
- Utilized scikit-learn, NumPy, and pandas on Google Colab to analyze the top 10 revenue from 2020 to 2021 and develop a logistic regression model for predicting rankings, by open data "Top 50 Fast-Food Chains in the USA".
- Scraped location information for nearly 65,000 franchised stores by utilizing Beautiful Soup to extract data from the official websites of the top 10 most profitable fast-food chains.
- Employed Tableau to create Point distribution maps showcasing the geographical distribution of chain stores in each state of the United States using latitude and longitude coordinates obtained earlier.

Music Recognition Android App 🔗 | *Java, Python, Shell, SQL, AWS Glue* **Jan 2023 - Apr 2023**
- Extracted 1,000 songs' raw data from Spotify's AJAX pages with Beautiful Soup into JSON files, then changed schema into CSV with AWS Glue (with crawler, Amazon Athena) and loaded the files into SQLite database.
- Improved song identification accuracy to 72% for 12 sec audio tracks by optimizing audio fingerprint recognition, reducing processing time by 30% through lower frequency audio generation, enabling get results within 3 sec.

SKILLS & OTHERS

Languages Python, JavaScript, HTML, CSS, SQL, C/C++, Java, Shell, MATLAB
Other Tools Flask, Node.js, React.js, D3.js, Bootstrap, jQuery, Git, Docker, PyTorch, TensorFlow, OpenCV, PySpark, Pandas, NumPy, matplotlib, Tableau, Linux, Android SDK, MySQL, SQLite, Mongodb, GCP, AWS
Certification AWS Certified Cloud Practitioner (CLF-C01) | AWS Certified Solutions Architect-Associate (SAA-C03)
Publication Journal(2016) | Thesis(2016) | Patent(2018) | Patent(2018) | Research Project(2022)