

Yi-Qing (Elliot) Lin

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EDUCATION

University of California, Davis, Master of Computer Science (GPA 3.9)
Master of Science in Computer Science

Davis, CA

National Tsing Hua University (NTHU)
Bachelor of Science in Computer Science

Hsinchu, Taiwan

WORK EXPERIENCE

Complify AI

March – May 2025

Software Engineer | Python, AWS, Fast API, Docker

United States

- Developed a tick-marking pipeline for internal SOX auditing procedure integrating AWS Textract service and OpenAI API to enable precise OCR result and reasonable auditing proof
- **Reduced manual tick-marking time by 90%** by designing an automated tick-marking process with batch querying and semantic analysis, reducing cognitive loads of searching for relevant information in the document
- **Increased auditing efficiency by 70%** on SOX controls by developing a pipeline to support user with auto-detected reasonings and evidence to select from, allowing flexibility on evidence selection preferred by auditor
- **Reduced document information extraction time by 75%** by implementing digitally generated pdf file text analysis with AWS Lambda integration, bearing image-based OCR text extraction to support image-based pdf file

Collaborative and Social Computing Lab

January – December 2024

Software Engineer | Python, LLM, RESTful API

United States

- Developed a Python-based user-centric AI chatbot integrating minimum domain knowledge and LLM to support new users in planning goals and performing tasks on domain related website
- **Achieved task completion rate by 90%** by implementing dual-level state machine dialogue engine to support user in task performance, ensuring proper guidance are provided to users
- **Reduced task completion time by 30%** by embedding action tokenization in the user interface for seamless interaction, streamlining user interaction with user interface and chatbot
- **Reduced dialogue agent development cycle by 50%** by adopting modularized design of domain knowledge integration accelerating dialogue agent creation and test process

Scientific Computing on Parallel Environment Lab

July 2021 – June 2022

Software Engineer | Python, Computer Vision

Hsinchu, Taiwan

- Solved business challenges of manually building 3D objects with innovative 3D model reconstruction pipeline incorporating scalable ability to utilize performance from both CPU and GPU, **boosting efficiency by 95%**
- Enhanced object contour generation by designing the feature extraction process with line-sweep algorithm and utilizing edge detection, ensuring accurate geometrical information is extracted
- Achieved visual similarity rate by 90% by adopting instance segmentation and building after primitive reconstruction, introducing spearheaded concept for 3D object reconstruction using single image

Daily Tech Job Update | Python, AWS, NextJS, PostgreSQL,

- Developed a Python-based interactive data visualization application with PyQt6 and Matplotlib to avoid the labor-intensive work in analyzing raw three point bending data with Excel
- Improved data analyzation efficiency by 90% by adopting data preprocessing for large data and systematic analyzation, maintaining consistent and reproducible outcomes and reducing manual effort and cognitive loading to minimum

Interactive Three Point Bending Data Analyzation Tool | Python, PyQt6, Matplotlib, Data Engineering

- Developed a Python-based interactive data visualization application with PyQt6 and Matplotlib to avoid the labor-intensive work in analyzing raw three point bending data with Excel
- Improved data analyzation efficiency by 90% by adopting data preprocessing for large data and systematic analyzation, maintaining consistent and reproducible outcomes and reducing manual effort and cognitive loading to minimum

SKILLS

Programming: Python, C/C++, Linux, Git, Docker

Web Development: AWS, Fast API, RESTful API, NextJS, PostgreSQL