Ethan Liu

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Technical Skills

Programming Languages: Python, Swift, Java, JavaScript, C/C++, Bash, SQL
Operating Systems: macOS, iOS, Linux, Windows, Android, Chrome
Framework: React, Flask, Vite, Fast API, Swagger
Software Tools: Git, Splunk, Docker, Selenium, Tableau
Apple Tools: PR3, Radar, TSTT, Quick, Xcode

Professional Experience

Software Engineer (CE) - Apple   Jul 2023 - Nov 2023

- Developed a Splunk query to identify over 63 persistent failures within the system. Reported more than 250 bug reports for software builds.
- Conducted livilability testing and triaging for devices on all Apple platforms.
- Used Python to automate non-UI and XCTest for UI based test cases to reduce manual testing time.
- Developed Python script to consolidate device state and display overall pipeline health.

Tech Advisor - Apple   Jun 2022 - Present

- Provided technical assistance to Apple customers with difficult situations by understanding the problem, developing and researching a solution, documenting scenario, and problem solving.
- Achieved over 91.5% on quality standard, 90% on customer satisfaction, and 82% on issue resolution.

Fullstack Developer - Ren Energy   Mar 2022- Aug 2022

- Developed an API server for data validation by using JavaScript, TypeScript, YAML, Node framework, and Docker for deployment.
- Automated data validation for API server response resulting in an 81% improvement in data integrity.
- Automated data validation for MySQL database resulting in improved workflow efficiency of 36%.

Data Engineer - Purple Cow Agency   July 2020 - Dec 2020

- Organized data using excel and MySQL to complete over 200 client data for customers. Used Tableau for data visualization to find correlation between current and poetein client.

Software QA Specialist - Finders Tree   Sep 2018 - May 2022

- Ensured comprehensive test coverage of SaaS websites by performing exploratory and automated testing using Selenium in Java, documenting bugs, and creating test suites.

Embedded Software Engineer - NETWORK Sound   Nov 2019 - May 2020

- Designed and implemented a embedded software that act as a sound control system using microcontrollers, Wi-Fi, and Bluetooth technology, incorporating CAPWAP and IAPP protocols.
- Developed a user-friendly interface with JavaScript and coded ESP32 in C for optimal performance.

Project Experience

AI Story Teller

- Innovatively developed an AI Storyteller app, seamlessly integrating computer vision and NLP technologies.
- Demonstrated expertise by leveraging Hugging Face's Transformers for image-to-text and integrating GPT-2 for creative story generation.
- Proficient in Python, ML, and deep learning techniques, with additional capabilities showcased through OpenAI API for NLP tasks.

Search and Rescue using AI/ML

- Developed Raspberry Pi project to locate and rescue individuals in remote areas with low visibility.
- Developed a program in C to fetch real-time GPS coordinates and thermal camera images.
- Used Python for SMS communication and OpenCV and Tensorflow to assist with image processing.
- Developed embedded software that act as a hub for all of the components.

Measure Soil Moisture using Microcontroller

- Developed embedded software in C to interface with GPIO for capturing moisture levels in soil.
- Implemented an analog-to-digital converter to display values on an LCD screen and make decisions using a finite state machine.

Homework Helper SaaS

- Developed a Discord bot using Python and Node.js to assist students with homework and tests.
- Discord server grew to over 200+ students using the service.

AI Story Painter

- Innovatively developed an AI Storypainter app, seamlessly integrating computer vision and NLP technologies.
- Demonstrated expertise by leveraging Hugging Face's Transformers for image generation and integrating LLM.
- Comfortable with different models. Hosted and managed project on GitHub, highlighting version control practices.

React Live Chat

- Developed a real-time chat application using Node.js, React.js, and ChatEngine.io.
- Implemented user authentication, socket connections, and real-time messaging with features such as group chats, direct messages, and file attachments.
- Troubleshot and debugged to ensure seamless user experiences, showcasing proficiency in full-stack development and effective problem-solving.

Pokemon Index

- Used React to develop a web app to fetch data from PokeAPI and display Pokémon details.

School Database Management

- Developed database with MySql based on the information provided and data cleaning to achieve an organized and easy access database. The project helped over 80 students select their desired GE classes.

Education

B.S. Computer Engineering
Related Courses:

Network Analysis	CMOS and Digital VLSI Design
Computer Interfacing	Computer Architecture/Organization
Discrete Structures	Signals and Systems
System Program Unix	Circuit Analysis
Physics & Calculus	Data Structure
Algorithm Analysis Advanced Logic Design	CompSys Attack+Countermeasure
Database Management System	Computer Network + Internet
Probability and Random Signal	

Certification

Coursera:

Relational Database and SQL	Google Data Analytics
Data Visualization with Tableau by UC Davis	Data Science by DeepLearning.AI
Machine Learning Stanford University	Mathematics for Machine Learning
Unsupervised Machine Learning	Python for Data Science
AI & Development by IBM skillnetwork	

Accomplishments

Award:

Dean's Hornor	Honors Student
President award	Winner of ICPC
Educational Excellence	Winner of Data Fest Chico

Language/Citizenship

Language:

English	Fluent
Mandarin	Fluent
Japanese	Classroom study

Citizenship:

United State	Taiwan