Ethan Liu

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Technical Skills

Programming Languages: Python, Swift, Java, JavaScript, C/C++, Bash, SQL, Go **Operating Systems:** macOS, iOS, Linux, Windows, Android, Chrome, UNIX

Framework: React, Flask, Vite, Fast API, Swagger Software Tools: Git, Splunk, Docker, Selenium, Tableau

Harware: Tools: Verilog, VHDL

Apple Tools: PR3, Radar, TSTT, Quick, Xcode

Professional Experience

Founding Engineer - Zinley

Sep 2024 - Present

- Maintained PostgreSQL & Redis backend in Go for processing customer data, & JWT authentication.
- Facilitated quality assurance of registration workflow, boosting the number of user sign-ups by 10%.
- API documentation with Open API Spec/Swagger
- Collaborated with cross-functional teams to integrate the Python script with existing monitoring tools, resulting in a 75% improvement in overall pipeline health visibility and proactive issue resolution.
- Expanded Marketing and Social Media Strategy: Created a comprehensive social media and outreach strategy, engaging tech communities on Reddit, Twitter, Product Hunt, and Discord achieve 100 users within five days.
- User Engagement and Growth: Increased user engagement through targeted marketing on subreddits, developer forums, and social media, driving Zinley adoption in early access.
- Produced and Edited Promotional Media: Created, edited, and optimized video demos and tutorials, leveraging tools like iMovie to enhance user onboarding and product visibility.
- Managed Feedback-Driven Development: Collected and analyzed beta feedback, implementing improvements in deployment features, UI/UX, and user experience.

CoreOS Software Engineer (CE) - Apple

Jun 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 livability testing, blackbox testing, and triaging for devices on all Apple platforms, saving 9
 hours per test cycle.
- Improved overall testing efficiency by integrating XCTest frameworks with Python automation, leading to a 30% reduction in test execution cycles.
- Collaborated with cross-functional teams to integrate the Python script with existing monitoring tools, resulting in a 75% improvement in overall pipeline health visibility and proactive issue resolution.

Tech Advisor - Apple Jun 2022 - Feb 2024

- Researched and resolved complex technical issues for Apple customers, resulting in a 90% customer satisfaction rate and a 20% decrease in call escalations to senior support.
- Documented detailed troubleshooting processes for common Apple product issues, reducing average handling time by 10% and improving overall team efficiency.
- Collaborated with cross-functional teams to implement new communication protocols between tech advisors and engineers, leading to a 15% increase in bug resolution speed.

Fullstack Developer Intern- Ren Energy

Mar 2022- Aug 2022

- Led a team of interns in developing and deploying a robust data validation API server using JavaScript, TypeScript, and the Node.js framework, resulting in a 40% improvement in data accuracy and efficiency metrics.
- Automated data validation processes for API server responses, leading to a 60% increase in data integrity and a 90% reduction in manual error rates.
- Designed and implemented a new data validation process that boosted database accuracy by 30%.
- Collaborated with a fullstack developer to ensure seamless integration of the data validation API into the existing application stack.

Data Clerk - Purple Cow Agency

July 2020 - Dec 2020

- Structured and organized client data for 200+ customers, utilizing advanced Excel functions and MySQL databases, resulting in improved data quality.
- Utilized Tableau to analyze client data, identifying key trends and correlations that led to a 15% increase in client retention rates.
- Implemented ELT pipelines to efficiently process client data, leading to a 30% decrease in data processing time and enabling real-time analytics for improved decision-making.

Software QA Specialist - Finders Tree

Sep 2018 - May 2022

- Executed thorough exploratory and automated testing of SaaS websites using Selenium in Java, resulting in a 20% decrease in critical bugs.
- Documented and diagnosed bugs found during the testing process, resulting in a 15% reduction in overall bug resolution time and improving the user experience.
- Conducted manual testing on website functionality and security measures, identifying and rectifying 6
 critical vulnerabilities.

Professional Experience

- Collaborated with hardware engineers to conduct testing on the embedded software, achieving a 98% success rate in connection stability and compatibility with various devices.
- Revamped the ESP32 coding structure in C, leading to a 30% improvement in system performance and a 25% reduction in overall energy consumption.
- Collaborated with cross-functional teams to integrate CAPWAP and IAPP protocols into the software system, enhancing network performance by 30%.

Project Experience

Al 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 OpenAl 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 is to assist students with homework and tests.
- Discord server grew to over 200+ students using the service.

Al 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.

YouTube Rebuilt

- YouTube-inspired Platform: Develop a video-sharing platform resembling YouTube.
- Key Features: Fetch video data (views, likes, channels), enable search functionality, categorize videos.
- User Experience: Focus on intuitive interface, efficient content delivery, and user engagement features.

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.

Sacramento, California

Status: Graduated

Status: In Progress

Atlanta, Georgia

Education

California State University - Sacramento B.S. Computer Engineering Georgia Institute of Technology M.S. Computer Science

Certification

Coursera:

Relational Database and SQL

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

Python for Data Science

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