

Ying Tu

Los Angeles, CA 90007 | (213) 512-9113 | tuying@usc.edu | [linkedin.com/yingtu](https://www.linkedin.com/yingtu) | github.com/yingtu35

SKILLS

Language	Python JavaScript TypeScript C Java SQL Unix/Linux Shell
Frameworks	React.js Next.js Node.js Express.js React Native Android Django Flask FastAPI
Databases	MySQL PostgreSQL MongoDB
Platforms/Softwares	AWS(EC2/S3/ELB/EBN), GCP(Cloud Storage/Pub Sub/Cloud Run), Firebase(Functions/Firestore), Docker
Tools	Jest Cypress Git GitHub Actions Postman Restful API GraphQL TailwindCSS Jira Trello
Certifications	<u>AWS Cloud Practitioner</u>

EDUCATION

University of Southern California, U.S.	Expected May. 2025
Master of Science in Computer Science	GPA: 4.0/4.0
National Taiwan University, Taiwan	Jan. 2022
Master of Science in Chemical Engineering	GPA: 3.98/4.0
National Taiwan University, Taiwan	Jun. 2019
Bachelor of Science in Chemical Engineering	GPA: 3.95/4.0

PROFESSIONAL EXPERIENCE

Backend Developer - Django Rest GBCS Group	Feb. 2024 - Present
<ul style="list-style-type: none">Involved in software development life cycle, including project planning, customer requirement analysis, API design, documentation, QA, and maintenanceExposed mathematical equations for calculating lifetime greenhouse gas (GHG) emissions of vehicles as API endpoints with Python FastAPI backend frameworkCollaborated with research team to refine GHG models, ensuring improved scalable backend system for each scrum sprint.Consolidated documentation and related materials to facilitate communication within teams about code, research, and business needs experiment results, and spreading best practicesLeveraged Trello project management tool for tasks visualization, collaboration, and management	

PROJECTS

GitHub Issues Manager	Mar. 2024
<ul style="list-style-type: none">Crafted a GitHub issues management application using Node.js framework with TypeScript and TailwindCSSUsed OAuth 2.0 for secure user authentication and access authorization, leveraging GitHub REST API for issues managementEnhanced page loading speed with Server-side Rendering and Code Splitting for better SEO performanceAdopted skeleton loading to reduce bounce rate and cumulative layout shift, improving user experience	
Weenix kernel	Feb. 2024
<ul style="list-style-type: none">Led a team of four in implementing a Linux-based full operating system Weenix with C languageDelivered key functionalities for the operating system, including booting, multi-threading, scheduling, and file managementAccelerated development with Mind Map to untangle problems, facilitate team communication, and visualize workflowAssigned tasks and orchestrated collaboration by tracking issues and bugs with Jira	
Mobile eBay Search App	Dec. 2023
<ul style="list-style-type: none">Developed a Android mobile application with Java, allowing users to search for eBay products and create a customized wishlistFamiliarized with cloud services by deploying back-end server to AWS Elastic Beanstalk to serve HTTP requestsDecoupled API requests from fragments for clean design and ease of maintenance, reducing development time by 25%	
YouTube Clone	Sep. 2023
<ul style="list-style-type: none">Engineered a serverless and scalable back-end system with Google Cloud Platform to manage up to 80 concurrent user requests.Deployed a video processing service that reduced video sizes by 90%, enhancing storage efficiency and streaming performance.Employed server-side rendering techniques with Next.js to accelerate website loading times	
Portfolio Website - yingtu35.github.io/	Jul. 2023
<ul style="list-style-type: none">Minimized image sizes and improved page render time from 5s to less than 500msImplemented CSS for animation on 20 areas including texts, images, and buttons to introduce better user interactionApplied responsive web design with CSS media queries to let website adapt to various screen sizes and platforms	

AWARDS

1st Place Award , Kartrider: Drift Challenges eSports Global Competition, Taiwan	Apr. 2023
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