

Tony Huang

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DevOps | Backend Development | Node.js | Data Pipelines | IaC (Terraform) | GCP | Linux

Software engineer specializing in DevOps, infrastructure as code (IaC), and scalable backend systems. Delivered technical initiatives that drove 25% revenue growth and reduced infrastructure costs by more than 50%. Experienced in building large-scale e-commerce advertising delivery systems and data-driven IC design platforms.

Work Experience

Software Engineer | National Taiwan University Hospital | Jan. 2026 – Present

- Enterprise Healthcare Transformation & Legacy Modernization: Modernized a legacy Classic ASP system (750+ pages, 75K LOC) serving 9M+ patients into .NET 10 Blazor + REST APIs, **cutting code by 75%, remediating 260+ SQL-injection risks**, and unifying hospital/vendor auth under OIDC SSO.
- Practical Edge **AI** & Restricted-Environment Workflows: Built nhi-rag-bot using a native Cloudflare stack to automate complex NHI billing lookups via RAG, while establishing a dual-track AI development workflow (GitHub Copilot Desktop & Visual Studio) tailored for strict, firewall-restricted intranet environments.
- Multimodal LLM Research & System Architecture: Benchmark-tested state-of-the-art multimodal LLMs on medical vision tasks (such as blister pack pill counting) to identify reasoning limits, advocating for hybrid healthcare systems that combine computer vision, agentic workflows, and human verification.

Senior Software Engineer | Appier Inc. | Jan. 2024 – Jun. 2025 | Sep. 2025 – Jan. 2026

- Developed an **AI-powered** e-commerce advertising delivery system using Node.js, Vue 3, Angular, and Ruby on Rails, supporting more than **200K** concurrent connections and resolving over **44%** of engineering issues. The platform was adopted by major enterprises including Carrefour, Pizza Hut, Yeogi Eottae, and Qoo10.
- Led the migration of system flags from Redis to MongoDB, optimizing resource allocation and reducing infrastructure costs by **50%+**.
- Re-architected traffic ingress from a legacy shared NGINX deployment to GKE Native Ingress, eliminating downtime caused by resource contention and enabling the platform to handle massive traffic surges.
- Developed a short-URL integration that reduced SMS length, unlocked a new market, and drove **25%** revenue growth.
- Strengthened CI/CD by updating Jenkins pipelines and Playwright end-to-end tests, and improved Grafana monitoring for key customers.

Advanced Software Engineer | Novatek Microelectronics Corp. | Apr. 2021 – Dec. 2023

- As one of the **first four** founding members of the Design Platform team, led the development of a Java and Vue 3 data platform that replaced manual Excel project tracking and streamlined workflows for more than 10 major projects, including those for Samsung and Apple.
- Built a Gitea-based version control platform from the ground up and established the team's CI/CD workflows.
- Architected data pipelines and deployed **2+** machine learning models to optimize compute resource allocation.

Education

M.S. in Computer Science & IE
National Taiwan University (NTU)
Sep. 2019 – Jan. 2021
GPA: 4.0/4.3

B.S. in Computer Science
University of Taipei
Sep. 2015 – Jan. 2019
Grade: 94.84/100

Exchange Student
University of Malaya
Sep. 2016 – Jan. 2017

Technical Skills

AI & LLM: RAG, Vector Databases, LLM Evaluation, Agentic Workflows, LangChain

Programming Languages & Tools: Node.js, Java, Python, C#, Bash, Playwright

Cloud & Infrastructure: GCP, AWS, Terraform, Ansible, Kubernetes

Monitoring: Grafana, EFK

Honors & Awards | AI Competitions and Hackathons

- E.SUN AI Open Competition, Winter 2021: Credit Card Transaction Category Recommendation (13th of 859 teams)
- Top-20 Team, 2022 Taiwan Presidential Hackathon
- Open Source Contributor VIP Pass (OSCVPass), 2023 and 2026