

# Chih-Ting (Justin) Yeh

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## WORK EXPERIENCE

### Institute for Software Integrated Systems, Vanderbilt University

Research Software Engineer Intern

08/2023 – Present

- Developed emulation tools on top of Mininet to validate the effectiveness of reinforcement learning agents
- Built visualization tools with FastAPI, PostgreSQL, and Plotly, converting network data into interactive plots
- Engineered 4 continuous integration pipelines for internal projects with Jenkins, Docker, and Nginx
- Authored and presented a paper titled "Realistic and Lightweight Cyber Agent Training Environment using Network Emulation in Mininet" at DESTION 2024 Workshop Program

### Academia Sinica

Research Assistant

07/2020 – 03/2022

- Developed fund recommendation systems, achieving a 150% increase in purchase cases for clients
- Implemented a PyTorch-based multi-task learning framework to predict early blockbusters, resulted in a 20+% performance improvement on two real-world datasets in different languages
- Authored and published a paper titled "A Learning Framework with Disposable Auxiliary Networks for Early Prediction of Product Success" at the IEEE/WIC/ACM WI-IAT 2021 conference

## EDUCATION

### Vanderbilt University

Master's, Computer Science - 3.87 GPA

08/2022 – 05/2024

### National Taiwan University

Engineering Science and Ocean Engineering

09/2014 – 06/2018

## SELECTED PROJECTS

### Web-based Solitaire Game | React, NodeJS, MongoDB, Redis, AWS EC2, Route53

08/2023 - 12/2023

- Live website: [solitairejs.com](https://solitairejs.com)
- Implemented a robust full stack Solitaire app using Node.js, MongoDB, Redis, GitHub OAuth 2.0, React.js, Styled Components, AWS EC2, and Route53

### Portfolio - Cloud Resume Challenge | Terraform, AWS, GitHub Action, TypeScript, NextJS

05/2024 - Present

- Live website: [justinleafyeh.com](https://justinleafyeh.com)
- Implemented a serverless portfolio website using AWS S3 Bucket, Route 53, Cloudfront, Certificate Manager, Next.js, and API Gateway, Lambda function, Dynamo DB as backend.
- Followed CI/CD practices with Terraform and GitHub Action.

### iOS AR Network Visualization App | Swift, SwiftUI, RealityKit, ARKit

04/2024 - 05/2024

- Developed an iOS application using Swift, SwiftUI, RealityKit, and ARKit to visualize cybersecurity simulation
- Implemented an API backend using FastAPI and PostgreSQL to manage the state of network simulations
- Live demo: <https://github.com/justinyeh1995/CybORG-ARViz/tree/main>

### Java Spring Boot Movie Recommendation Systems | Java19, Gradle, Spring Boot

01/2023 – 05/2023

- Implemented microservices using Spring WebMVC, Spring WebFlux, Spring Cloud Gateway, Spring Data JPA, and the concurrency features of Project Reactor, leveraging parallel reactive programming

## SKILLS

- Languages: Python, JavaScript/TypeScript, SQL(Postgres, MySQL), Java, C++
- Web: React.js, Next.js, Node.js, Express.js, Spring Boot, FastAPI, Flask, HTML/CSS, Tailwind
- Databases: PostgreSQL, MySQL, MongoDB, Redis
- Cloud, DevOps Tools: AWS, Terraform, Github Action, Docker, Kubernetes, Jenkins
- Developer Tools: Unix/Linux shell scripting, Git, Maven, Gradle, NPM, Webpack