Education

University of California, Irvine

Irvine, California

Ph.D. in Software Engineering. GPA: 3.98/4.0

September 2021

Thesis Topic: Advancing Automated Software Testing Through Test Reuse

National Tsing Hua University

Hsinchu, Taiwan

Master of Science in Computer Science. GPA: 4.0/4.0

June 2008

National Tsing Hua University

Hsinchu, Taiwan

Bachelor of Science in Computer Science. GPA: 3.07/4.0

June 2006

Technical Skills

Programming Languages: Python, C#, Java, PowerShell, JavaScript, SQL

Web App Development: Django, .NET Core, jQuery, Bootstrap

Cloud Development and CI/CD: Microsoft Azure and DevOps, Jenkins, Robot Framework, Selenium

Machine Learning and Natural Language Processing: scikit-learn, gensim, NLTK

Experience

MGM Resorts International

Irvine, California

Software Engineer

September 2021 – Present

- Supported the Site Reliability Engineering team with alert monitoring and incident management to ensure 99.9% availability of the digital services at MGM
- Developed automated solution with Azure, DevOps, and .NET Core to reduce the MTTR (mean time to resolve) of cloud tickets by 96% (4 days → 4 hours)

University of California, Irvine

Irvine, California

Graduate Student Researcher

September 2016 - September 2021

- Conducted research in software analysis and testing with natural language processing and machine learning techniques
- Authored and published 6 peer-reviewed papers at top software engineering venues in 5 years

QNAP Inc.

Taipei, Taiwan

Software Engineering Intern

July 2016 - August 2016

• Introduced automated acceptance and regression testing with Python, Selenium, Robot Framework, and Jenkins to shorten the regression cycle from days to hours

National Agricultural Library

Beltsville, Maryland

Research Intern

May 2014 – May 2015

- Designed and implemented a queuing system for a Django website with RabbitMQ and Celery
- Initiated and conducted continuous integration on web services, including automated functional and stress testing using Selenium and JMeter

Projects (700+ Stars and 390+ Forks on GitHub)

Kaggle Competition: Rainfall Prediction (7/126, top 6%): Used ensembles (e.g., Random Forest and XGBoost) and feature engineering (e.g., missing data handling) to predict rainfall on 40K data points of infrared information

PTT Web Crawler (390+ Stars and 200+ forks): A Python command-line tool to crawl and parse data from PTT, the largest local online community in Taiwan

Bulletin Board for Government Jobs (800+ daily users): A Django website hosted on AWS, parsing and visualizing open data from Taiwan's government

Predicting Best Answers for Questions on Stack Overflow: Applied various ML models (e.g., Random Forest and XGBoost) and NLP techniques (e.g., Latent Semantic Indexing) to predict best answers for 44K questions on Stack Overflow. Outperformed baseline by 8.5%

Selected Publications (Google Scholar Citations: 331. H-index: 8)

Conference Papers

• GUI Test Transfer from Web to Android <u>Jun-Wei Lin</u> and Sam Malek

15th IEEE International Conference on Software Testing, Verification and Validation (ICST 2022) (26% acceptance rate)

Test Automation in Open-Source Android Apps: A Large-Scale Empirical Study
 <u>Jun-Wei Lin</u>, Navid Salehnamadi, and Sam Malek
 35th International Conference on Automated Software Engineering (ASE 2020) (23% acceptance rate)

Test Transfer Across Mobile Apps Through Semantic Mapping
 <u>Jun-Wei Lin</u>, Reyhaneh Jabbarvand, and Sam Malek
 34th International Conference on Automated Software Engineering (ASE 2019) (21% acceptance rate)

 Nemo: Multi-Criteria Test-Suite Minimization with Integer Nonlinear Programming <u>Jun-Wei Lin</u>, Reyhaneh Jabbarvand, Joshua Garcia, and Sam Malek 40th International Conference of Software Engineering (ICSE 2018) (21% acceptance rate)

Using Semantic Similarity in Crawling-Based Web Application Testing
 <u>Jun-Wei Lin</u>, Farn Wang, and Paul Chu
 10th IEEE International Conference on Software Testing, Verification and Validation (ICST 2017) (27% acceptance rate)

Book

• Web Scraping and Data Analysis with Python (in Chinese) <u>Jun-Wei Lin</u> and Hubert Lin DrMaster Press, 2018. ISBN: 9789864343386

Honors and Awards

Graduate Dean's Dissertation Fellowship, UC Irvine, 2020 Chair's Award and Graduate Dean's Recruitment Fellowship, UC Irvine, 2016 Government Fellowship for Studying Abroad, Ministry of Education, Taiwan, 2014