Jun-Wei Lin

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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 — July 2008

National Tsing Hua University — Hsinchu, Taiwan
Bachelor of Science in Computer Science. GPA: 3.07/4.0 — June 2006

Technical Skills

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

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

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

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

Certifications: Microsoft Certified Azure Developer Associate; Azure Fundamentals; AWS Certified Cloud Practitioner

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

Side and Curriculum Projects (720+ Stars and 400+ 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 (400+ Stars and 210+ 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 active 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: 370. H-index: 9)

- ROUTE: Roads Not Taken in UI Testing
  Jun-Wei Lin, Navid Salehnamadi, and Sam Malek
  ACM Transactions on Software Engineering and Methodology (accepted to appear)

- GUI Test Transfer from Web to Android
  Jun-Wei Lin 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
  Jun-Wei Lin, 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
  Jun-Wei Lin, Reyhaneh Jabbarvand, and Sam Malek
  34th International Conference on Automated Software Engineering (ASE 2019) (21% acceptance rate)

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

- Nemo: Multi-Criteria Test-Suite Minimization with Integer Nonlinear Programming
  Jun-Wei Lin, 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
  Jun-Wei Lin, Farn Wang, and Paul Chu
  10th IEEE International Conference on Software Testing, Verification and Validation (ICST 2017) (27% acceptance rate)

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