Jai-Hua (Kevin) Yen

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Citizenship: U.S. Citizen

EDUCATION

The State University of New York at Buffalo — New York, USA
Doctor of Philosophy in Biostatistics — Aug. 2024 - Present

National Taiwan University — Taipei, Taiwan
Master of Science in Biometry — Sep. 2017 - Aug. 2019

National Tsing Hua University — Hsinchu, Taiwan
Bachelor of Science in Quantitative Finance — Sep. 2013 - Jun. 2017

SKILLS

- **Programming:** Python, R, SQL, Golang, Matlab, SAS, C, C++, Linux, Docker, Git, LaTex

RESEARCH EXPERIENCE

National Taiwan University — Taipei, Taiwan
Graduate Student Research Assistant — Sep. 2017 - Aug. 2019

- Derived an adjusted Chao2 species richness estimator, reducing underestimation by 15% and mitigating a 10% overestimation in scenarios with very low corrected denominators while mitigating identity errors common in species surveys
- Conducted data cleaning on weed and plant cover species surveys conducted in Soft Bridge County, Taiwan, and Grand St. Bernard Pass, Switzerland

TEACHING EXPERIENCE

National Taiwan University & Taipei Medical University — Taipei, Taiwan
Teaching Assistant Conference Lecturer — Feb. 2019

- Conducted teaching sessions for 100+ students
- Presented teaching methodologies, crafting materials, and becoming a proficient teaching assistant

National Taiwan University — Taipei, Taiwan
Teaching Assistant — Sep. 2017 - Jan. 2019

- Taught statistics and linear algebra to accounting, agricultural chemistry, agronomy, and veterinary medicine majors
- Designed and delivered TA courses covering R and Excel fundamentals
- Achieved a 4.58 rating out of 5.0 from 54 students; received the Excellent Teaching Assistant Award (Top 1% evaluation score)

INDUSTRY EXPERIENCE

QNAP Taipei, Taiwan
Senior AI Software Engineer Apr. 2024 - Jun. 2024
AI Software Engineer Feb. 2022 - Apr. 2024

- Trained a ResNet50 image classification model with a 70% F1-Score across 250 image classes and optical character recognition (OCR) models using vision transformers with 90% accuracy to enable efficient customer photo searches
- Leveraged CLIP (Contrastive Language-Image Pre-Training), a multimodal model, to integrate semantic search into the NAS search engine, empowering customers to search for photos and files using human-readable descriptions instead of conventional keywords
- Deployed models on edge devices, including customer NAS systems with Tensor Processing Unit (TPU) and Neural Processing Unit (NPU) acceleration, improving data security and inference speed within constrained computing resources
- Mentored junior personnel on programming, project organization, and training OCR models

TutorABC Taipei, Taiwan
AI Algorithm Engineer Jun. 2020 - Feb. 2022

- Created an 81% accurate customer churn detection model using random forest to decrease churn rates by 5%
- Developed an XGBoost customer purchase detection model with a 78% accuracy rate; utilized explainable machine learning method (SHAP value) to boost purchase rates and formulate targeted sales strategies
- Extracted key customer feedback using computer vision (YOLO, OCR) and natural language processing (TFIDF, BERT) models, enhancing data analysis for additional product features and improved user experience
- Accelerated the extraction, transformation, and loading (ETL) processes by 50%; consolidated by implementing Airflow for machine learning operations (MLOps)
- Mentored a junior engineer in programming, project structuring, and MLOps

PUBLICATION

Yen, J.-H., Chiu, C.-H. (2020). Richness estimation with species identity error. *Proceedings 62nd International Statistical Institute World Statistics Congress*, **Volume 6**, 401-408.