

Kehsin (Esther) Su

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LinkedIn Profile: <https://www.linkedin.com/in/esther-su-asa-0730/>

4 years of experience in analytics; Experienced with large-scale data and end-to-end machine learning systems

PROFESSIONAL EXPERIENCE

- Boston Consulting Group (BCG), Digital Ventures** Manhattan Beach, California
Data Scientist II Feb 2019 - Now
Areas: Computer vision, Natural language processing, Reinforcement learning
(Optical flow, RetinaNet, BERT, TFIDF, BIGRU, DAG, elastic search, LTR, NN, Thompson sampling)
- Built the geofencing system to prevented 99%+ incidences in the factory (object tracking)
 - Built the 1st generation QA system to reduce 20% customer waiting time and knowledge transfer cost
 - Integrated a LTR model to the search ranking system to optimize 5% of user feedback metric
 - Improved the tire recommendation power by filling thousands of data gaps with imputation and web-scraping
 - Built the scoring algorithms to integrate and normalize the business opportunities from different data sources
 - Recommended personal sleep contents with cold-start issue by a reinforcement learning algorithm
- Mercuries Life Insurance Company Ltd.** Taipei, Taiwan
Product Developer - Actuarial Analyst, ASA Sep 2014 - Jun 2017
Area: GLM, Survival analysis, Stochastic analysis, Multivariate/Univariate analysis
(Poisson/Gamma regression, Chain ladder, Markov chains, Bayesian, Bootstrap, Back-testing)
- Developed a novel whole life cancer product (UBAC) to increase customer acquisitions and revenues
 - Executed experience study, sensitivity analysis, cash flow forecasting, and simulation for risk and profit optimization
- Boston Consulting Group (BCG), Digital Ventures** Bellevue, Washington
Data Scientist (Intern) Jun 2018 - Aug 2018
Area: Time Series Analysis (LSTM, dynamic regression, threshold autoregression, grey forecasting model (GM(1,1)))
- Created benchmarks for the water auto-fill system to save 10% of cost in the green house
 - Implemented a new grey forecasting model to deal with limited data and improve 38% of accuracy
- Intento** Berkeley, California
Data Scientist (Intern, co-op with Division of Data Science at UC Berkeley) Feb 2018 - May 2018
Areas: AB testing, Recommendation, Natural language processing (Sentiment analysis)
- Designed a customer-facing sentiment APIs experiment to distill customer satisfaction for further recommendation
- Disease Surveillance And Risk Monitoring (DiSARM) Platform, UCSF** San Francisco, California
Researcher (part-time) Feb 2018 - May 2018
Areas: Spatial analysis, Machine learning-classification, Data Visualization
- Classified building types in Africa with OpenStreetMap to implement the malaria control into household level
 - Combined Leaflet and Shiny to visualize the classification model into a web app to deliver insights at scale
- Department of Statistics, University of California Berkeley** Berkeley, California
Statistical Consultant (part-time) Aug 2017 - Dec 2017
Areas: Nonparametric analysis, Casual inference (Wilcoxon test, meta-analysis, mediation analysis)
- Assisted the Compassion Cultivation Training(CCT), medical and psychological research

EDUCATION

- University of California Berkeley, California, USA** Dec, 2018
Master of Arts (M.A.), Statistics
- National Taiwan University, Taipei, Taiwan** Dec, 2016
Computer Science and Information Engineering (Information System Training Program Certification)
- National Taipei University, Taipei, Taiwan** Jun, 2014
Bachelor in Business Administration, Statistics (AACSB accredited)

PUBLICATION

- American Society of Tropical Medicine and Hygiene 67th Annual Meeting Poster Session C 1507. Improving precision of health campaigns through an API for identifying residential buildings. Su K, Andrade-Pacheco R, Li E, Liu L, Feng M, Sturrock HJW

TOOLS AND SKILLS

Python, R, VB, SAS, C, MATLAB, SQL, NoSQL(MongoDB), Unix Shell Scripting;
Spark, Keras, Git, REST API(Flask, Falcon), Docker;
AWS(S3, SageMaker, EC2, EMR), GCP(BigQuery, Kubernetes, Data Studio);