Dr. Yu-Ting Shen

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SKILLS

- Programming: Python (pandas/numpy/scipy/matplotlib/seaborn/NLTK), C/C++, BASH shell script, Scala
- Machine Learning: scikit-learn, Apache Spark, Keras, TensorFlow, PyTorch, Stable-Baselines
- Database: SQL, PostgreSQL, TablePlus, BigQuery, Incorta, Datalab
- Big Data: Apache Hadoop, Hive, Hue, Cloudera
- Others: Jupyter Notebook, JupyterLab, Git, Docker, Google Cloud Platform, AWS, vscode, IntelliJ CE, Confluence, JIRA, Slack, Anaconda
- Analysis: Data mining, Data Cleaning, Data Visualization, EDA, ETL, Time series, Monte Carlo simulation, Probabilities, Statistics, Hypothesis test, A/B test, boostrapping, Bayesian

EXPERIENCE

Seeloz Inc. San Jose, CA
Data Scientist 2019/04 - present

- Developed and maintained the essential deep-Q learning models in SCAS Autonomous Procurement & Inventory (AP&I) platform to optimize profitability and minimize supply chain inefficiencies.
- Established and conducted the data processing pipeline to extract useful information from large dataset, integrated the results into Incorta database and updated the SQL queries in the dashboard.
- Built new LSTM models using Keras for time series data predictions and improved the r^2 score from 0.15 to 0.94.
- Helped customers to reduce the costs and lost sales by performing anomaly detection and data visualization to find out the unusual distributions of inventory and procurement in customers' datasets.
- Managed and upgraded the Cloudera making Spark and jupyter service run over all the Seeloz Clusters.

University of Oklahoma & Louisiana Tech University Norman, OK
Postdoctoral Researcher 2018/07 - 2019/04

- Investigated 1M+ new experimental records to improve model prediction precision by uncovering the hidden relation between momentum and TPR.
- Generated Monte Carlo simulation data and extracted useful features by applying feature engineering.

Organisation Européenne pour la Recherche Nucléaire (CERN) Geneva, Switzerland
Data Analyst & Data Scientist 2015/03 - 2018/03

- Established and optimized the data analysis pipeline to reduce 80% CPU time and improved key performance metrics. Programmed in Python to build decision tree and regression models for analysis team.
- Built regression model and applied statistical methods to extract signal within 95% confidence interval.
- Improve true positive rate from 0.85 to 0.93 by developing a new classification model for the electron isolation efficiency which became the standard version for the collaboration.

Academia Sinica Taipei, Taiwan
Research Scientist 2009/07 - 2011/07

- Discovered serious bugs in simulation programs by performing exploratory data analysis on simulated data. Programmed in C++ to redesign bug-free Monte Carlo simulation programs.
- Improved 50% of the signal significance by devising a new classification model.

Taiwan Semiconductor Manufacturing Company (TSMC) Hsinchu, Taiwan
R&D engineer 2006/12 - 2009/02

- Led and supported 7 projects to build various models to predict the device performances and documented the model usages and performances.
- Developed a standard operating procedure (SOP) in analysis pipeline to reduced 5% to 10% model variance and instructed colleagues how to apply the SOP in their projects.
- Converted potential clients to paying clients by providing preliminary models matching clients' specifications.
- Coordinated effectively with cross-functional teams and clients to resolve issues with tight deadlines.

EDUCATION

University of Oklahoma   Norman, OK
Ph.D. in Physics   Cum. GPA: 3.47 / 4.00   2011/08 - 2018/05
- Published 4 top journal papers and 5 conference notes, and presented in 2 conferences.
- 6 semesters teaching assistant for college and graduate level courses.

National Taiwan University   Taipei, Taiwan
M.S. in Physics   Cum. GPA: 3.86 / 4.00   2003/09 - 2006/07
- Won 3rd place graduate student thesis awards, The Physical Society of Taiwan, 2006.

Chung Yuan Christian University   Chung Li, Taiwan
B.S. in Physics   Cum. GPA: 3.53 / 4.00   1998/09 - 2002/07
- Certificate of Holistic Achievement Award, 1998 - 1999, 1999 - 2000, and 2000 - 2001
- Certificate of Academic Achievement Award, 2000 - 2001