Yuto Suzuki
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Education

Master in Computer Science (Data Science in Biomedicine Track)   August 2021-present
University of Colorado, Denver

Master in Chemical System Engineering   April 2015- March 2019(August 2016- leave of absence, eventually withdrawal to pursue entrepreneurship)
University of Tokyo

Bachelor in Chemical System Engineering   April 2011-March 2015
University of Tokyo

Research Interest

- Generative AI for de novo drug design

Research Experience

Master's Thesis   August 2021 - present
Big Data Management and Mining Laboratory, University of Colorado, Denver
- Conceptualized a research topic and proposed a novel approach in personalized federated learning and authored a paper submission as the first author
- Implemented variational autoencoders, applied clustering and provided interpretation using SHAP values to recommend optimal treatment to atrial fibrillation patients, which led to contribution to a paper submission as a second author

Research Assistant   May 2021 - present
Big Data Management and Mining Laboratory, University of Colorado, Denver
- Designed and implemented a web framework which manages specific pipeline for sea ice image classification machine learning models
- Implemented LSTM autoencoder-based clustering of COPD patients who show the symptom of exacerbation, which revealed the heterogeneity in warning signals of exacerbation

Master's Thesis   April 2015 – July 2016
Tsuru Laboratory, Chemical System Engineering, University of Tokyo
- Conceptualized a research scope and proposed a solution for "Development of Productivity Evaluation Models for Surgical Robots"

Undergraduate Thesis   **April 2014 – March 2015**

Dobashi Laboratory, Chemical System Engineering, University of Tokyo
- Conceptualized a new research topic, designed experiments and defended my thesis: "Investigation of the Ignitability of Hydrogen-air Mixture in Turbulence Flow"

Teaching Experience

Teaching Assistant   **April 2015 – June 2015**

University of Tokyo
- Answered questions from undergraduate students in "Experiments in Computer Chemistry"

Publications

Yuto Suzuki, Farnoush Banaei-Kashani, "Clustered Federated Learning for Heterogeneous Feature Spaces using Siamese Graph Convolutional Neural Network Distance Prediction", Federated Learning Systems (FLSys) Workshop@ MLSys 2023, 2023/7/2

Christopher D Barrett, Yuto Suzuki, Sundos Hussein, Lohit Garg, Alexis Tumolo, Amneet Sandhu, John J West, Matthew Zipse, Ryan Aleong, Paul Varosy, Wendy S Tzou, Farnoush Banaei-Kashani, Michael A Rosenberg, "Evaluation of Quantitative Decision-Making for Rhythm Management of Atrial Fibrillation Using Tabular Q-Learning", Journal of the American Heart Association, 2023/5/2

Professional Experience

Founder and CEO   **February 2016- September 2020**

JapanWork.Inc
- Founded a software company to help foreigners in Japan to get a job, got more than 150,000 user registrations
- Successfully acquired by a public company at the valuation of about 4.5 million dollars
- Conducted more than 20 idea verification experiments
- Negotiated with investors and client companies
- Managed 30 employees to grow my company

https://www.marketscreener.com/quote/stock/EN-JAPAN-INC-11551516/news/En-japan-inc-completed-the-acquisition-of-51-stake-in-JapanWork-Inc-from-Yuto-Suzuki-34233390/

Technical Skills

- Programming Languages: python, R, ruby, C++, javascript, html, and css
- Databases: PostgreSQL, MongoDB