Takao Shimizu

Seattle, WA | https://tshimizu97.github.io

Education

Middlebury College, Middlebury, VT — Expected March 2021
Candidate for Bachelor of Arts: Computer Science & Neuroscience
• **Predicted Computer Science Major GPA**: 3.83/4.00
• **Relevant Coursework**: Algorithm (Java); Systems Programming, Security (C); Bioinformatics, Data Structures (Python)

University of Helsinki, Helsinki, Finland — September 2019 – May 2020
Visiting Student to Master's Programme: Computer Science & Neuroscience
• **Relevant Coursework (all Master's level)**: Advanced Machine Learning (Python), Trustworthy Machine Learning (Python), Machine Learning in Molecular Biology (Python), Computational Statistics (Python)

Selected Work Experiences

Institute for Molecular Medicine Finland (FIMM) — Helsinki, Finland
Visiting Researcher to Data Science and Genetic Epidemiology Lab — March 2020 - Present
• Designed and trained deep learning models based on Resnet50 for both classification and regression through transfer learning to predict healthcare outcomes in UK biobank dataset from geographical data
• Independently built Python API for easy retrieval of pre-processed geographical data from Google Map

Aalto University — Helsinki, Finland
Research Assistant to Imaging Neuroscience Lab — March 2020 – August 2020
• Trained and tested deep learning models to simulate human brain activities in visuo-cognitive tasks, combining convolutional neural network model and Word2Vec
• Contributed to mne-rsa, an open-source library in computational neuroscience, by adding visualization functions

LeapMind — Tokyo, Japan
Research and Business Development Intern — June 2018 – August 2018
• Simulated and analyzed brain activities using mathematical models such as autoregressive models, ICA and CNNs
• Conducted qualitative research on UX and marketing of LeapMind's IoT deep learning solution

Institution for a Global Society (IGS) — Tokyo, Japan
Data Science and Business Intern — June 2017 – August 2017
• Analyzed numerical and text user data of IGS's Ed-tech solution with ML algorithms such as k-means, SVD and LDA
• Led 4 college students of a summer business intern team and designed a prototype for a new Ed-tech service

Selected Personal Project

Sakentry — January 2021 - Present
• Developed iOS app to find, learn and review about Sake, Japanese alcoholic beverage, just like we use Vivino for wine
• Features (will) include finding Sakes through free word search and filtering, uploading reviews and taking notes with pictures, and communicating with other users through social media features such as likes and comments
• Built datasets of sake and sake breweries through web scraping

Skills

• Languages: Japanese (native), French (elementary)
• Programming Languages (in the order of most to least proficient): Python, Swift, C, Javascript, Java, R, Haskell
• Tools and Frameworks: React, Next.js, Xcode, Google Cloud Platform, Jupyter Notebook, Firebase, Git/GitHub
• APIs and Datasets: PyTorch, scikit-learn, Google Maps Platform, MNE Python, UK Biobank