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
- *Independently built Python API for easy retrieval of pre-processed geographical data from Google Map*
- 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

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

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
- *Led 4 college students of a summer business intern team and designed a prototype for a new Ed-tech service*
- Analyzed numerical and text user data of IGS's Ed-tech solution with ML algorithms such as k-means, SVD and LDA

Selected Personal Project

Sakentry (GitHub repo: https://github.com/tshimizu97/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: free word search, filtering, uploading reviews with pictures, social media features (likes & comments)
- Built datasets of sake & sake breweries through web scraping in Python
- Languages & Tools: *Swift, Python, Typescript, Xcode, Firebase, Algolia*

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