Seiji M. Sakurai

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https://neuralfilter.github.io/
https://github.com/neuralfilter

EDUCATION

- **University of Waterloo (University/College)** — Ontario, Canada
  Candidate for Bachelor in Honours Mathematics; N/A GPA — *Sep. 2018 – Feb. 2023*

EXPERIENCE

- **National Graduate Institute for Policy Studies** — Tokyo, Japan
  Research Assistant — *July 2018 - August 2018*
    - **Analysis**: Analyzed higher education policy by synthesizing datasets
    - **Processing**: Processed 30+ GB of data related to higher education using Pandas and Numpy

- **Alpaca AI** — Kobe, Japan
  Software Engineer/Researcher — *May 2016 - August 2016*
    - **Implementation**: Implemented an AI based on Google Deep Mind Paper
    - **Proposal**: Proposed and implemented new machine learning algorithm for financial transactions
    - **Research**: Documented findings and proposals which was considered during the creation of the actual service

PROJECTS

- **Patient fMRI Classification**: Programmed an algorithm using the XGBoost random forest in order to use MRI data to classify schizophrenia patients through the use of modal fMRI data. My research successfully improved algorithm precision and accuracy by 8% than previous study. The algorithm also identified potential regions that may function as biomarkers.
- **Classification of Un-Detonated Explosives Using Aerial Photography**: Created a machine learning algorithm that uses photos from World War II to classify an area is likely to contain un-detonated explosives. The training data was created through the use of a image processing algorithm in OpenCV. I hand classified the 1750+ images used to train the algorithm.
- **Stamp Rally Web App to Promote Tourism**: Created a web app with a team to promote tourism in a city in the Tohoku region, effected by the 2011 earthquake. The project was done in conjunction with the local government who helped us in giving direction and suggestions for the project. The web app I created incentivized visitors to explore the various land marks in order to get a reward from a local shop.

AWARDS/RECOGNITION

- **GENIUS Science Olympiad (International)**: Finalist for Environmental Science Category
- **Japan Science and Engineering Challenge (National)**: Final 60 Papers
- **Local Innovation Competition (National)**: Corporate Award
- **World's Scholar Cup Kansai Round (Regional)**: 1st Place Team / Team Leader
- **Writing on Quora**: My answers have been sent to a total of 10 million users
- **Kendo/Japanese Fencing**: Shodan

SKILLS

- **Languages**: Python, Java, C++, HTML, CSS
- **Technologies**: AWS, NumPy, Pandas, Matplotlib
- **Software**: Microsoft Word, Excel, Power Point

CERTIFICATION

- **Coursera.org**: Data Scientist's Toolbox, R Programming, Regression Models
- **Stanford Lagunita**: America's Poverty and Inequality