Haoyan Jiang, Machine Learning Engineer

4379875544, haoyanhy.jiang@mail.utoronto.ca

LINKS Personal Portfolio, Medium, Github, Linkedin, Twitter

PROFILE Knowledgeable in computer science and statistics with emphasis on machine learning, computer algorithms, and software development, with a strong foundation in math, logic and cross-platform coding.

EMPLOYMENT HISTORY

Feb 2020 — Present

Machine Learning Scientist & Full-Stack Developer, Interactive Media Lab
Toronto

Using the Transfer Learning model, Multitask Learning and Convolutional Neural Network to analyze fMRI images and predict the stage of dementia based on full-brain analysis; Developing the Centivizer system with Full-Stack techniques to stimulate subjects' different brain sections

Apr 2019 — Sep 2019

Software Developer & 3D Modeling, Interactive Media Lab
Toronto

Driving Simulation Game for Elder People; Engine building, game logic and modeling of real-time driving experiences on web-serving applications using Babylon.js, express.js, and axio.js; Building and importing 3D models for famous scenic views in the world using Blender; Data insight with MongoDB, using algorithms to analyze the player's brain functionality

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PROJECT

Feb 2020 — Present

Long-Short Term Memory Model in Time Series (AAE-LSTM-ET)

Take advantage of the LSTM model to deal with longitudinal data and time-series problems. Open-source with PyTorch, Numpy and Python.

Jan 2020 — Present

Web Design/Deployment for Performance Right Organizations (PRO)

Using React.js, Material-UI, TypeScript, and PostgreSQL to connect frontend and backend logic; Deployed on Heroku, Continuous Integration (CI) in production line, Jest for testing; Combining Stripes and SendGrid to realize real-time payments and contacts for PROs like SOCAN

Feb 2020 — Mar 2020

Self-implementation of Transformer and GRU with Attention

Exploiting the power of Transformer model with Additive Attention and Scaled Dot Product Attention to translate Pig-Latin, test against traditional GRU and RNN models.

EDUCATION

Jan 2021 — Jan 2023

Master of Science, University of Toronto
Toronto

Master degree in Mechanical & Industrial Department under the supervision of Professor Mark Chignell, focusing on developing software to research in public health and medical industry and provide data insight using Machine Learning models.

Sep 2016 — Nov 2020

Bachlor of Science, University of Toronto
Toronto

Double major in Computer Science and Statistics, specializes in Machine Learning and Software Development

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SKILLS

Python	Matlab/Simulink
PyTorch	Java
Scikit-Learn	JavaScript
Full-Stack Development	R
C/C++	Linux OS