HUIYU CHU

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EDUCATION

Technical University of Munich, Munich *Oct 2022 - now*

Master of Informatics

Current GPA: 1.65 / 1.00

Key Courses: Computational Neuroscience, Introduction to Deep Learning, Machine Learning for Graph and Sequential Data, Artificial Intelligence in Medicine, Computer Vision II: Multiple View Geometry, Natural Language Processing, Quantum Computing, IOS development practicum, Data mining practicum.

Tongji University, Shanghai *Sep 2017 - July 2022*

Bachelor of Computer Science and Engineering

Overall GPA: 4.49 / 5.00

Key Courses: High-Level Language Programming, Machine Learning, Pattern Recognition, Principles of Artificial Intelligence, Introduction to Image Processing, Principles of Database Systems, Chinese Information Processing (NLP).

RESEARCH EXPERIENCE

How acetylcholine is correlated with behavioral states and shapes spontaneous neuronal activity in neonatal mice , Technical University of Munich *Apr 2023 - Feb 2024*

Interdisciplinary Project, Computational Neuroscience Lab, 85354 Freising, Germany

Supervised by: Prof. Dr. Julijana Gjorgjieva, Technical University of Munich

Sorely responsible for tracking the facial behavioral features of neonatal mice undergoing optogenetic experiments using Deep Learning methods. After tracking, subsequent data analysis (preprocessing and clustering) was performed. Cooperated with Dr. David Cabrera (Lohmann Group, Netherlands Institute for Neuroscience)

Starbucks Retail Demand Forecasting, Tongji University *Sep 2021 - May 2022*

Supervised by: Dr. Dawei Cheng, Tongji University

Designed an Transformer-based model(called ECAN) to predict the retail demand of Starbucks coffee shops. Responsible for training process, pre-processing historical transaction data from Starbucks and transforming preprocessed data into Pytorch Dataset. The prediction solution has been patented(Publication Number: CN116911907A).

fMRI study of Ultra-High Risk for Psychosis in Undergraduates, Tongji University *Sep 2019 - Jan 2021*

Main Team Member

Supervised by: Dr. Xiaoliang Gong, Tongji University and Dr. Anthony Cohn, University of Leeds

Pre-processed 55.6G structural and functional MRI data from 66 undergraduates using MATLAB packages (SPM and FreeSurfer). Used hypothesis testing (one sample t-test, paired t-test, etc.) to find statistically significant activated cerebral areas(Dorsolateral Prefrontal Lobe), serving as input features of binary classifiers. Used machine learning methods (SVM, Bayesian classifier, GBDT, and ResNet) to design models of a binary classifier, predicting whether a given MRI image is from a person at high risk of schizophrenia.

WORK EXPERIENCE

Machine Learning Engineer, *Sep 2023 - Dec 2023*

Kijini GmbH, Am Vierergraben 9, D-85452 Moosinning

- Having LzLabs as customer, provided a Bert-based solution for unsupervised log anomaly detection. Sorely responsible for the whole pipeline (data processing, LogBert model finetuning, result analysis)

Machine Learning Engineer Intern, *Nov 2021 - Aug 2022*

Shanghai ShunRuFengLai Technology, Hongkou District, Shanghai

- Used Spark to optimise the prediction model currently running in 82,320 Chinese Starbucks coffee shops.

- Provided an extra prediction solution during the COVID-19 epidemic by feature engineering.

HONOURS AND AWARDS

- Allianz Scholarship, (2022-2024)
- Second Prize of Tongji Scholarship of Excellence – Top 10%, (2019-2020)
- First Prize of Tongji Scholarship of Excellence – Top 5%, (2017-2018)

SKILLS AND LANGUAGES

Languages:	English (IELTS 7.0), German (DSH-2)
Data Analysis:	Python(Pytorch, Sklearn), Distributed machine learning(Hadoop, Spark), MATLAB
Software Engineering:	React, Spring Framework, CICD, microservice architecture, Docker, Git

EXTRACURRICULAR EXPERIENCE

Summer school, Institute of Neuroscience, Chinese Academy of Sciences, Beijing, China *Jun 2019 - Sep 2019*

Participant

- Conducted research and familiarised myself with protocols in cognitive neuroscience laboratories.
- Engaged in learning the principles EEG data-collection while subject participates in behaviour experiments.