

Zhihao (Johnson) Du

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Links

Github

github.com/JohnsonJDDJ

Personal Website

zhihao.myxd.place
(for info on all projects)

Skills

Languages

Python (since 2017)
SQL (since 2019)
Java (since 2020)
R (since 2020)
C (since 2021)
HTML, CSS (since 2017)

Coursework

Neural Networks
Statistical Learning
Service Operations Design
Database Systems
Reproducible Data Science
General Linear Models
Data Structures
Machine Structures
Linear Algebra
Probability Theory

Tools

Git (since 2020)
Jupyter (since 2020)
Microsoft Azure (since 2022)
DBeaver (Summer 2021)
Command Line
Microsoft Office

Education

Note: Applying for master's program with expected graduation date: 05/2024.

University of California, Berkeley

B.A. Statistics, B.A. Computer Science

GPA: 3.75/4 | Expected graduation date: 05/2023

Experience

ETL Engineer Intern

DataCVG Shanghai | 05/2021 - 08/2021

Helped the client "FosunPharma" manage their database system with pharmaceutical data by performing extract-transform-load (ETL) on relational databases. The project involved the following processes:

- Designed the architecture for the target relational database.
- Wrote queries to combine tables from two relational data sources.
- Debugged architecture failures through long diagnostic process.

Research

Python ML Engineer

Project AEI - Koer A.I., Inc. | 01/2022 - Now

Responsible for the algorithm behind emotion discernment and early warning system for police aggression. Built a parallel CNN transformer using pytorch to discern emotion from human voice. The steps are:

- Trained the model using large emotional databases (RAVDESS, SAVEE).
- Preprocessed data through augmentation using librosa and pytorch.
- Training process carried through Azure ML cloud compute platform.

Projects

ZileanLeague

Machine Learning in Python | 06/2022 - Now

Predicted League of Legends match outcomes with game statistics before the 16 minute mark by tuning a random forest classifier and a XGBoost classifier through hyperopt.

zilean

Python Package Development | 05/2022 - Now

Developed a python package "zilean" that bridges the Riot Games API and the traditional python data science environment by (1) transform semi-structured data into two dimensional tables ready for ML and (2) bring game domain knowledge into data manipulation.

HOYO Lab

Data Modelling in R | 03/2021 - 08/2021

Predicted Genshin Impact's damage calculation algorithm by building a basic linear model, then displayed the result using R ShinyApp. Data collected from in-game simulations. Used the model to wrote game tutorials receiving 400,000+ views.