

Yifeng He

CONTACT INFORMATION

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RESEARCH INTERESTS

Content based recommender systems, image classification, object detection, collaborative filtering, programming languages for AI, music-related machine learning

EDUCATION

University of California, Davis, Davis, California, USA

B.S., Computer Science, 2019 – Present (Anticipated Graduation date: 06/2023)

B.S., Applied Mathematics, 2019 – Present (Anticipated Graduation date: 06/2023)

HONORS AND AWARDS

Dean's Honor List, 2019, 2020, 2021, 2022

PUBLICATIONS

He, Y, (in press), *Big Data and Deep Learning Techniques Applied in Intelligent Recommender Systems*, PPRAI 2022.

PROFESSIONAL EXPERIENCE

ByteDance

04/2021 – 08/2021

Software Engineering Intern, Income Platform Team

- Use microservice technic to connect all parts of the author income settlement bushiness.
- Transform author-relation data architecture design from relational database (SQL) to graph database (Gremlin) to allow better efficiency for the business model.
- Refactor the income calculation control process with visitor design pattern in Python 3 to allow better extendability and maintainability.
- Use better modular design to allow easier change of calculation strategy by product manager.

Xigua Video

05/2021 – 06/2021

Software Engineering Intern, Author Experience Team

- Create a data cleaner script with ORM to maintain the size and readability of online data settlement table (about 5 billion rows) so that all services built on top of that table have reasonable performance.
- Create the offline flow of Medium Video Encouragement Project for weekly data calculation, and build the interface for front-end (web and mobile app) to display the data visualization.

HackerHub, UC Davis Club

07/2020 – Present

Technical Officer - Co-President - President

- Organizes and leads the Code Jam Competition on various topics.
- Teach in introductory programming workshops in topics: Assembly, Functional Programming.

PROJECTS

Music Genre Classifier

05/2022 – 06/2022

- Process music samples into spectrogram by Short-time Fourier transform
- Design the appropriate model (CNN) to classify spectrograms into category
- Analysis the resulting model and test outputs with saliency maps

ImageOrientation

03/2022 – 04/2022

- Pre-process image data by rotating them with random generated angles, and assign these angles as label
- Design the appropriate CNN for this regression task, test and improve the model
- Hyper-parameter tuning based on train, validation, and test results to achieve better performance

Genshine Impact Wishes Analyzer**08/2021 – 09/2021**

- Fetch wished data from MiHoYo and process into different categories.
- Store data into local database automatically, write into excel for data analysis by option.
- Generate text or graph visualization report from data analyze result

dcash-server**05/2021 – 07/2021**

- Create a multi-threaded API server using C++, allowing user to create account, deposit, and transfer,
- Use MySQL to store and maintain user data.
- Make API calls to the Stripe API server to handle credit card information.

permualgebra**Dec. 2020 – Jan. 2021**

- Python package that allows calculation of algebraic permutations.

Fishbone++

- Brief introduction: a delightful oh-my-zsh theme, written in shell script.

COMPUTER SKILLS • Languages: Python \geq C \approx C++ \geq R \approx Haskell \geq js \approx Rust $>$ Java \approx SQL