Yifeng (Ethan) He

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🎓 Education

University of California, Davis, Davis, CA   2019 – Present
B.S. in Applied Mathematics, *B.S.* in Computer Science, GPA: 3.887/4.000
Anticipated Graduation Date: 06/2023
Relevant Coursework: AI, CV, Deep Learning, Recommender Systems, Graphics, OS, Real Analysis, Complex Variables, Modern Algebra, ODE
Honors:
Dean's Honor List   Fall 2019, Spring 2020, Spring 2021, Spring 2022

⚙ Skills

- Programming Languages: Python $\geq$ C $\approx$ C++ $\geq$ R $\approx$ Haskell $\geq$ js $\approx$ Rust $>$ Java $\approx$ SQL

👥 Experience

ByteDance   Apr. 2021 – Aug. 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   May. 2021 – June. 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   Jul. 2020 – Present
Technical Officer - Co-President - President

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

👥 Selected Project

ImageOrientation   Mar. 2022 – Apr. 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

dcash-server   May. 2021 – July. 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.

♟ PUBLICATION

He, Yifeng, *Big Data and Deep Learning Techniques Applied in Intelligent Recommender Systems.*

- Accepted by the 2022 International Conference on Picture Processing, Robotics and Artificial Intelligence (PPRAI 2022) on July 12th, 2022.
- Will be published by IEEE Conference Publishing Services, and will be submitted to EI Compendex, Thomson ISTP and CNKI databases.

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