

Yifeng He

CONTACT INFORMATION

Cell: (530) 302-6806 — **E-mail:** yfhe@ucdavis.edu — **WWW:** <https://yfhe.net/>

RESEARCH INTERESTS

Program Analysis (Compilers, Types, and Fuzzing), Code Understanding via Machine Learning & NLP, Programming Languages for Machine Learning & AI, Secure and Formal Verifiable Programs, Computer Security.

PUBLICATIONS

Huang, J., Zhao, J., Rong, Y., Guo, Y., **He, Y.**, Chen, H. *Code Representation Pre-training with Complements from Program Executions*, International Conference on Learning Representations (ICLR), 2024. *Under Review*.

Zhao, J., Rong, Y., Guo, Y., **He, Y.**, Chen, H. *Understanding Programs by Exploiting (Fuzzing) Test Cases*, Findings of Association for Computational Linguistics (ACL), 2023.

He, Y., *Big Data and Deep Learning Techniques Applied in Intelligent Recommender Systems*, IEEE 4th International Conference on Civil Aviation Safety and Information Technology (ICCASIT), 2022.

HONORS AND AWARDS

Citation for Outstanding Performance, Dept. Mathematics, UC Davis, 2023

Dean's Honor List, College of L&S, UC Davis, Fall 2019, Spring 2020, Spring 2021, Spring 2022

INTERNSHIP

ByteDance

04/2021 – 08/2021

Software Engineering Intern, Income Platform Team

- Used microservice tech to connect parts of the author income settlement business
- Transformed author-relation data architecture design from relational database (SQL) to graph database (Gremlin) to allow better efficiency for the business model
- Refactored the income calculation control process with visitor design pattern using Python 3

Software Engineering Intern, **Xigua Video** Author Experience Team

- Created a data cleaner script with ORM to maintain the size and readability of online data settlement table
- Created the offline flow of Medium Video Encouragement Project for weekly data calculation
- Built the interface for frontend of web and mobile app to display the data visualization

ACTIVITIES

HackerHub Club, UC Davis

07/2020 - 06/2023

Co-founder, President, Technical Officer

- Design and maintain a course recommendation system, CourseReco, for UC Davis students
- Organize and lead the Code Jam Competition on data visualization, AI, augmented reality and virtual reality, and machine learning
- Coach in introductory programming workshops, including Assembly, functional programming, recommender system, generative adversarial network, etc.