

# YIFENG (ETHAN) HE

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## 🎓 EDUCATION

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**University of California, Davis**, Davis, CA

2019 – Present

B.S. in Applied Mathematics

B.S. in Computer Science

Anticipated Graduation Date: 06/2023

GPA: 3.912/4.000

## 👤 EXPERIENCE

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**ByteDance, Toutiao**

Apr. 2021 – Aug. 2021

*Server-end Developer* Intern

Brief introduction: I am a member of the Toutiao Author Ecosystem team. The main job of our group is to allocate income, subsidy, and bonus for content creators depends on data. My major works are:

- Toutiao Income Platform.
  - Data
    - \* Clean data in tables stored in MySQL database.
    - \* Interact with big data (HIVE table) and Graph DB with Apache Gremlin.
    - \* Most of the tables have about 4 billion rows, and getting millions of new data on a daily bases.
  - State control.
    - \* Use scripts to do RPC calls to control the state of our service module and calculation engine.
    - \* Use scripts to do the control flow that ensure the communication of all components of the large platform.
- Toutiao Operation Platform
  - Help build the backend interface for operating tool.
  - Organize online, offline data to provide RPC/HTTP service.

**dcash-server**

May. 2021 – July. 2021

*Contributor* Class Project

Brief introduction: A multi-threaded HTTP web server for online payment, deposit, and currency transfer (with Stripe).

**dcash-web**

July. 2021 – Aug. 2021

*Contributor* Individual Project

Brief introduction: A front-end web client for dcash-server with React.

**permualgebra**

Dec. 2020 – Jan. 2021

*Author, Maintainer* Individual Project

Brief introduction: Python package that allows calculation of algebraic permutations.

**Load On Dice Game**

Nov. 2020 – Dec. 2020

*Main Contributor* Group Project

Brief introduction: MATLAB game project with MATLAB appdesigner.

**HackerHub** UC Davis Club

Jul. 2020 – Present

*Technical Officer*

Brief introduction: Technical officer at HackerHub organizes and leads the bi-weekly Code Jam. The bi-weekly Code Jam is based on any interesting CS topic (Machine Learning, Assembly, APIs, ...).

## **Fishbone++**

*Author* Individual Project

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

## **Python Programming for Children**

May. 2019 – Jul. 2020

*Second Author* Collaborated with friends in other colleges

Brief introduction: a book (in Chinese) teach basic Python scripts to K-8 and middle school level students. (In printing/publishing progress).

## **SKILLS**

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- Programming Languages:  $C \approx C++ \approx Python \geq Haskell \approx js > Java \approx SQL$
- Platform: GNU/Linux (Fedora), Mac OS

## **HONORS AND AWARDS**

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Dean's Honor List

Fall 2019, Spring 2020, Spring 2021

## **COURSE TAKEN (TAKING)**

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- Math: MAT 108 (Intro to Abstract Math), MAT 119A (ODE), MAT 127A,B,C (Real Analysis), MAT 135A (Probability Theory), MAT 150A (Modern Algebra), MAT 185A (Complex Variables)
- Computer Science: ECS 120 (Theory Computation), ECS 122A,B (Algorithm), ECS 140A (Programming Languages), ECS 150 (OS), ECS 154A (Computer Architecture), ECS 170 (AI), ECS 175 (Computer Graphics)
- Statistics: STA 103 (Applied Statistics)
- Music: MUS 117 (Broadway Musical)