Fergal Hennessy

Computer Science & Statistics

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About Me

Technical Skills C/C++, Python, Java, Unix/Linux, Javascript, MySQL, Solidity, LaTeX
Languages Fluent in Mandarin; Conversational Proficiency in Cantonese
Art Technology Adobe Photoshop, Adobe Premiere Pro, Illustrator
Interests Digital Art, Cinematography, Photography, Design, Poker

Work Experience

HSBC Holdings
Web3 Developer Intern San Francisco, CA (Jun-Aug 2022)

- Maintained web application services based on Blockchain technology (Ethereum contracts, decentralized chain of command based on proof-of-work principles)
- Prototyped potential products and presented to a team of 40
- Built MVP token on the Binance Smart Chain (BSC) using Solidity, C++, C#
- Integrated blockchain technology backend with React / nodeJS / Koa / mongoDB frontend

Mango Technologies
Mobile Application Developer Palo Alto, CA (Jul 2021)

- Utilized Swift frontend with Firebase backend to develop a native iOS social media app for sharing videos
- Transitioned from callbacks to promises reducing source size by 50%
- Responded to bug reports and fixed a variety of potential data security oversights

Projects

Serendipity (October2021 - Feburary 2022)

- Built fully featured social media app complete with cloud image hosting, user accounts, password hashing and email authentication
- Built both the frontend and backend of the application, leveraging MongoDB/Express/React/NodeJS in conjunction with Heroku and Tencent Cloud hosting
- Raised daily users by over 500% and reduced failed login attempts by 98%
- Currently available at s3rendipity.herokuapp.com

ChessTogether (January 2022)

- Built multiplayer, online realtime chess application with user selection between active games, storing game data between moves with Google Firebase.
- Handled user authentication process using cookies and allowed players to connect peer-to-peer with Express websockets.
- Currently available at hennessy.page/chess

Gitlet (December 2021)

- Developed a version control system backed by a tree-based data structure that employs SHA-1 encryption.
- Capable of handling multiple file additions and removal with constant run time efficiency.

Education

University of California, Berkeley Berkeley, CA (2021–Present)

- Computer Science, Statistics
- Expected Graduation: May 2024
- Honors: Dean's Honour List

Michigan State University East Lansing, MI (2019-2021)

- Coursework in Economics, Mathematics
- Cummulative GPA: 3.8