

Harrison Ku

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in hmku1

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education

University of California, San Diego
B.S. Computer Science
4.0 Major GPA, exp. 2020

skills

Languages: Java, Python, C, C++, C#, R, LaTeX, MATLAB, HTML/JS/CSS

Other: Flask, Node.js, Apache Kafka, PostgreSQL, Orator ORM, PyTorch, Android Studio, Unix/Linux

honors

USA(J)MO Qualifier

Top 250 (0.08%) on Olympiad-level mathematics competition out of ~300,000 participants

USACO Gold Division

Top ~600 internationally on algorithm-based programming competition

UCSD Jacobs School Scholarship

Full-ride merit scholarship extended to ~10 students out of ~85,000 applicants each year

coursework

CSE 30: Systems Programming
CSE 100: Advanced Data Structures
CSE 101: Algorithm Analysis/Design
CSE 105: Theory of Computability
CSE 158: Recommender Systems and Web Mining (Machine Learning)
CSE 202: Algorithms (grad-level)
MATH 183: Statistical Methods

experience

Jane Street Summer 2019
Incoming Quantitative Trading Intern

Quora Spring 2019
Incoming Software Engineering Intern

Pure Storage Summer 2018
Software Engineering Intern, DevTools Team

- Creating a flexible, full-stack framework for tools that react to pull requests
- Implementing Github's CODEOWNERS service and other development tools for company-wide use on Bitbucket
- *Tools/frameworks: Flask, Ember.js, Apache Kafka, PostgreSQL, Orator ORM, Bitbucket Server API*

Art of Problem Solving ongoing
Grader

- Evaluating/giving feedback on assignments for a variety of online advanced math and CS courses (competition math, object-oriented programming)

UCSD Jacobs School of Engineering ongoing
Tutor/Research Intern, CSE Department

- Tutoring for CSE 11 (OOP in Java) under Prof. Rick Ord
- Studying areas related to algorithmic theory and complexity under Prof. Russell Impagliazzo

projects

AlphaGomoku Pure Hackathon12

- Neural net-based AI that uses Monte Carlo tree search and reinforcement learning to master Gomoku (five-in-a-row)
- *Tools/Frameworks: Python, PyTorch*

LyricsSearch

- Web app that finds matching songs when given song lyrics
- *Tools/Frameworks: Flask, HTML/JS/CSS, BeautifulSoup, Google Search API*

MoodBible HackPoly 2018

- Full-stack mobile app that generates customized quotes and song recommendations based on the user's current mood
- *Tools/Frameworks: Android OS, Android Studio*