Ashwin K. Aggarwal

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EDUCATION

University of California, Berkeley, Computer Science, 2018 - 2022 (anticipated)

University of Chicago, Masters Program in Computer Science (MPCS), 2016 - 2017
Completed courses at MPCS: C Programming MPCS 51040, iOS Application Development MPCS 51030, Databases MPCS 53001

- Solid understanding of machine learning, parallel programming & game design (C & Python)
- iOS app creation in Swift, MVC architecture & material design
- Relational algebra, Entity-Relationship modeling, SQL, database schemas & big data

University of Chicago Laboratory Schools [GPA: 3.8], 2014 - 2018

WORK EXPERIENCE

Computation Institute, University of Chicago *May 2018 - Aug 2018*

- Analyzed AWS Spot Instance Price data to help users make more informed cloud space purchases
- Made a mathematical formula to calculate the probability of successfully launching a spot instance
- Created regression models for predicting the likelihood of buying cloud space over a time series
- Compared over 3 years of spot price history data and analyzed differences in price fluctuations

Computation Institute, University of Chicago *Jun 2017 - Sep 2017*

- Researched ensembling methods for machine learning classification algorithms
- Analyzed large material science datasets (~230,000 entries) with machine learning in Python
- Predicted chemical attributes, like enthalpy formation, of unknown chemical compositions
- Created collaborative filtering algorithms for scientific dataset recommendations

Waaves, University of Chicago Booth School of Business *Jan 2016 - Jun 2016*

- Led the startup development team to produce a Ruby on Rails based website with Amazon S3
- Researched collaborative filtering techniques
- Worked with UChicago Booth School students to prepare and present weekly finance presentations
- Awarded Semi-Finalists in Booth's New Venture Challenge among the 120 startups

PROJECTS

Bridge (Python, Swift)

- Received an honorable mention at Facebook's Global Hackathon
- An application that detects sadness using biometric data, like heart rate variability, from smartwatches
- Performs sentiment analysis on a user's Facebook posts to detect if someone is abnormally sad
- Notifies close friends or family members if someone is feeling sad, prompting them to help you

CoinTK (Python, Swift)

- Awarded Facebook's Favorite Hack at HackIllinois 2017 (UIUC)
- An open source program for users to backtest their bitcoin prediction algorithms.
- An iOS application and a web server are used to visualize the backtesting results

TrackEr (Swift)

- TrackEr is an iOS Application intended for coaches to easily communicate with their athletes.
- Implements a stopwatch, list of athletes, and instant text-message functionality — optimizes split recording
- Can be found on the App Store at https://appsto.re/us/cDG7ib.i.

SKILLS & AWARDS

- Received an honorable mention (4th overall) for **Bridge** at Facebook's Global Hackathon (Nov 15-18, 2017)
- Fluent in Python, C, Swift, SQL, JavaScript • Proficient with PHP, Ruby on Rails, & C++