

Troy Zhang

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

Berkeley, CA, USA

- **Year:** Junior
- **Double Major (prospective):** *B.A. in Computer Science & Statistics*
- **Expected Graduation:** Spring 2019
- **GPA:** Major GPA: 3.85 / 4.0; Overall GPA: 3.88 / 4.0

CORE QUALIFICATIONS

- **Programming Languages:** C, Ruby/RSpec, Python, Java, R, XML, SQL, Scheme
- **Specialties:** Computer networking (UDP, TCP), Software engineering, Database Management (Redis)
- **Software:** R Studio, Latex, Microsoft office, PowerPoint
- **Languages:** English (bilingual), Chinese (native), Japanese (fluent)

INTERNSHIP EXPERIENCE

Software Designer/Engineer @IBM Aspera

May – August, 2017

- Core team member of Aspera, Inc.
- Maintained and accelerated the core codebase of Fasp® fast data transfer protocol (UDP-based protocol)
- Implemented interface for Azure-files storage type
- Developed new features including access key lock, etc.

RESEARCH EXPERIENCE

Blockchain and Smart Contract

September - now, 2017

- Study concept of Smart Contract and decentralized applications
- Develop new programming abstractions for secure and decentralized systems

PROJECT EXPERIENCES

- **Pacman** (Core ideas: DFS, BFS, UCS, A* search; Product: An suboptimal Pacman AI) **September, 2017**
- **Approximate Algorithm for Knapsack Problem** (Core ideas: Dynamic Programming, Greedy Algorithm with heuristic values, pseudo-polynomial runtime) **May, 2017**
- **Performance Programming** (Core ideas: CNN, SIMD, Multi-thread Programming, MapReduce) **April, 2017**
- **NBA Salary-Efficiency Study** (Core ideas: web scraping, data analysis, data visualization; Product: A thorough & exhaustive report with concrete analysis & organized demonstrations) **November, 2016**

COURSE WORKS

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|---------------------------|---------------------------------|----------|------------|------------|
| • CS 188 (Intro to AI) | • CS 186 (Database) | • CS 61A | • CS 61B | • CS 61C |
| • CS 162 (OS Programming) | • CS 170 (Efficient Algorithms) | • CS 70 | • STAT 133 | • STAT 134 |

OTHER EXPERIENCES

- **LAB ASSISTANT OF CS 61B** (Help out in the labs, office hours and guerilla sections) **January – May, 2017**
- **LAB ASSISTANT OF CS 61A** **September – October, 2017**
- **BLOCKCHAIN COLLIDER EXPERIMENT** (Participated in the event as a member of a group of five people, studied several major cases of applications of Block chain) **March – April, 2016**