

# T. Thomas Zhang (Tom)

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## EDUCATION

**Columbia University**, School of Engineering and Applied Science  
BS in Computer Science | GPA: 3.67 | Dual Degree - Engineering

**New York, NY**  
May 2020

**College of William and Mary**, Mason School of Business  
BBA in Finance | GPA: 3.75 | Dual Degree - Liberal Arts

**Williamsburg, VA**  
May 2018

## PROFESSIONAL EXPERIENCE

### Vanguard

Quantitative Equity Group (QEG) - Intern

**Philadelphia, PA**  
Jun 2018 - Aug 2018

- Twelve-week internship in Vanguard's \$41 billion dollar quant fund, projects mentioned coded in Python
- Produced in house factor valuation report to identify undervalued factors using the Axioma risk model
- Streamlined data pipelines for cross sectional volatility, PCA, factor return, and market return analytics
- Produced risk heatmap and general analytics dashboard for Vanguard QEG's Factor Fund and Alpha Fund
- Analyzed fund factor/sector returns and enhanced current PCA analytics to assist in analysis of fund strategy
- Helped create and present quarterly QEG risk report, presented to CFO and Head of QEG

### Capital Group

Risk and Results Analysis - Intern

**Los Angeles, CA**  
Jun 2017 - Aug 2017

- Ten-week internship with Capital Group, projects mentioned programmed in Python and R
- Created Portfolio Opportunity Distribution script (POD) in Python to assess investment analyst performance
- Presentation on benchmarking investment analysts using PODs and diagnostics of other benchmarks
- Proposed the automation of and automated various daily data pulling and visualization tasks in Tableau

### IBM

Global Technology Solutions (GTS) - Co-op

**New York, NY**  
Jun 2016 - Jan 2017

- Six-month rotational program, filled roles in financial analysis and internal software development
- Performed fundamental research on IBM's competitors in its cloud business, presented to GTS management
- Automated monthly internal billing system responsible for \$1.3 million of charges every quarter

## ADDITIONAL EXPERIENCE

### Columbia University

Computer Science TA (Under Professor Michelle Levine)

**New York, NY**  
Sep 2019 - May 2020

- Two semester double credit Teaching Assistant for COMS E6998, Empirical Methods of Data Science
- Advised ~30 student group final project research papers and graded assignments through the semester
- Delivered two class lectures on how to scrape data from the web and how to statistically analyze data

Organizational Committee Member, CU Informs

Sep 2019 - May 2020

- Columbia University's Operations Research club, assisted in planning preprofessional and social events

CSA Tutor, Computer Systems, Computer Science Theory

Sep 2018 - May 2019

- The Center for Student Advising assigns tutors for Columbia students from underserved backgrounds

### Keystone Academy

Secondary School Teacher

**Beijing, China**  
Jan 2018 - Aug 2018

- Eight-month teaching program, planned class lessons, events, and activities for secondary school students
- Designed and taught basic eight-week personal finance and fundamentals of computer science curriculum

## SKILLS & INTERESTS

**Programming:** Proficient - Python (Pandas, Sci-kit Learn, Beautiful Soup), HTML/CSS/JavaScript  
Familiar - C, C++, Java, R, SQL

**Other Clubs:** eSports Club (President/co-founder), Chinese Tutor, Korean Student Association (Treasurer)

**Interests:** eSports, Basketball, Mid-Distance Running, Powerlifting, ML, Poker, Music Production, Markets