

QITIAN LIAO

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EDUCATION

University of California, Berkeley

M.S. Electrical Engineering and Computer Science

Berkeley, CA

Expected Graduation: Jun. 2021

University of California, Berkeley

B.A. Computer Science, B.A. Applied Mathematics, Minor in German

Berkeley, CA

Aug. 2016 – Jun. 2020

- **Major GPA: 3.98, Overall GPA: 3.983 | Dean's Honors to Date**
- **Relevant Coursework:** Efficient Algorithms and Intractable Problems (A), Database Systems (A+), Data Structures and Programming Methodology (A), Concepts of Probability (A+), Concepts of Statistics (A), Linear Algebra (A+), Abstract Algebra (A+), Complex Analysis (A+), Artificial Intelligence (A), Principles & Techniques of Data Science (A)

ACADEMIC PROJECTS

Research Project "Question Generators" [Python + HTML + JavaScript]

Feb. 2020 – Present

- Designed and launched fully functional automatic question generators using PrairieLearn, and built the infrastructure to enable selecting difficulty levels, generating new variants, and providing immediate feedbacks.
- Streamlined existing Question Generators on PrairieLearn and created an interactive assignment interface for students
- Managed a team of six, launched GitHub Project website and spreadsheet to track team progress, assigned individual tasks, organized weekly check-ins, and periodically maintained project repository on GitHub.

Personal Project "Complex Analysis" [LaTeX]

Jun. 2020 – Aug. 2020

- Developed and authored a 100-page detailed introduction to complex analysis, inspired by my notes on Math185; learned LaTeX functions, formulas, styles, code blocks and graph insertions.

Guavabot (Algorithm Design Project) [Python]

Feb. 2019 – Jun. 2019

- Implemented "Multiplicative Weights", "Follow the Regularized Leader", "Minimum Spanning Tree", "Dijkstra's", and "A*" algorithms. Familiarized with networkx and representation of DAGs.

PROFESSIONAL EXPERIENCE

Wayfair LLC

Data Solutions Engineer Intern

Boston, MA

Jun. 2019 – Aug. 2019

- Recreated the metrics and visualizations, and streamlined the dashboard previously used by departments in EU with Vertica SQL, more illustrative front-end implementation, and multi-dimensional filters; created dashboard capitalized by 2000+ Pricing & Profit Management employees in Wayfair US, and EU to land business marketing strategies.
- Assisted stakeholders with day-to-day inquiries: collected existing data with SQL, developed algorithms to compute metric numbers, improved data process workflow by embedding data integrity checks, and pipelined data among multiple clusters

University of California, Berkeley

Undergraduate Student Instructor of Math 1A: Calculus

Berkeley, CA

Aug. 2019 – Dec. 2019

Academic Intern of CS61A: The Structure and Interpretations of Computer Programs

Jun. 2018 – Aug. 2018

Academic Intern of CS61B: Data Structures and Programming Methodology

Aug. 2018 – Dec. 2018

- Lead weekly labs and discussion sections to teach core technical concepts; prepared worksheets, quizzes and exams; proctored midterms and finals; hold weekly office hours to guide students in homework and related questions.

Rabobank

Analyst Intern in Food & Agriculture Research Department

Shanghai, China

Jul. 2017 – Aug. 2017

- Attained raw marketing and sales data of 100+ companies' beverages using Bloomberg, categorized data with R, and analyzed and predicted marketing trends using Lagrange and Adam Moulton interpolation.
- Performed extensive industry research and data-mining on the marketing trends and premiumization of beverage, and drafted a five-page report on forecasting a gradual premiumization of beverages in the next decade in China.

SKILLS

Programming Languages: Java | Python | C | C++ | LaTeX | JavaScript | HTML | CSS | R | SQL | Scheme | RISC-V (Assembly)

Languages: Fluent in English, German, and Mandarin