linkedin.com/in/ryan-clark2k
github.com/ryanclark2k

Ryan Clark

rclark@caltech.edu
(415)301-0086

Education

California Institute of Technology (Caltech)
B.S. in Computer Science, Economics: 4.0 GPA (Expected June 2022)
Coursework in Algorithms, Networks, ML, Databases, Functional Programming, Probability and Statistics

Engineering Experience

Uncountable Inc (R&D Informatics Startup) San Francisco, CA
Full Stack Software Engineering Intern (6 Months) *March 2021 - Present*

- Led architectural design and implementation of a no-code data extraction system to upload and parse over 5000 files per month. Reduced turnaround time for customer data upload request from ≈4 weeks to 1-2 days.
- Spearheaded live engineering demos that were cited as keys reasons major clients chose Uncountable over competitors.
- Enhanced the R&D workflow system across the stack with novel automation and graphical customization features.
- Optimized database structure and dozens of API endpoints for performance-sensitive functions to handle 1000x greater data volume. (React, Redux, TypeScript, Flask, Postgres, AWS S3)

Western Asset Management (Global Fixed-Income Investment Firm) Pasadena, CA
Full Stack Software Engineering Intern *June 2020 - September 2020*

- Developed a microservice for computing diversified and undiversifed risk for sets of securities that reduced time to analyze a portfolio from 20 minutes to 2 minutes. (Julia, Oracle DB, Docker, Kubernetes)
- Designed and implemented a data dashboard that hierarchically subdivides portfolios and enables Risk Managers to analyze each subset. (React, TypeScript, Node.js).

Caltech: Adolphs Lab (Renouned Cognitive Neuroscience Lab) Pasadena, CA
Data Science Intern *June 2019 - September 2019*

- Developed a library of data analysis tools that determined novel demographic and methodological mediators of the relationship between implicit and explicit cognitive biases. (Jupyter, Pandas, and SciPy)

Caltech: CS 21 Decidability and Tractability Class Pasadena, CA
Teaching Assistant *January 2021 - March 2021*

- Led weekly office hours and graded problem sets for ≈100 students in proof-based theoretical CS class covering complexity classes, mathematical reductions, and theoretical models of computation.

Activities and Awards

Caltech Chess Team Member *October 2020 - Present*

- 1 of 4 students that represent Caltech in division-winning Collegiate Chess League team.
- Organize monthly school-wide bughouse (4 person chess) tournaments.

Eagle Scout

- Awarded Eagle Scout after leading community service and outdoor backpacking / camping events for 7 years.

Selected Projects

JavaScript Graphing Calculator: Constructed an abstract syntax tree parser in JavaScript and used it to implement a general purpose graphing calculator. (HTML, CSS, JS, Bootstrap)

3D Java Game Engine: Designed and implemented a game engine with custom lighting, entity management, terrain generation, and animation features. (Java, OpenGL)

Skills

Languages: Highly proficient in Python, TypeScript, SQL, and Julia. Proficient in C, C++, OCaml, Haskell, and Java.

Tools: Highly experienced with React, Redux, Linux, Node.js, and LaTeX. Experienced with Docker, Jenkins, AWS, and K8s.

Other: Strong skills in project planning, technical and interpersonal communication, leadership, and feature prioritization.