# Aray Watwani

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#### **EDUCATION**

# University of California, Berkeley

Expected May 2023

B.A. Computer Science

GPA: 3.65

#### EXPERIENCE

LPL Financial

San Diego, CA

Software Engineering Intern

May 2021 - Aug. 2021

• Summer 2021

# UC Berkeley, Department of EECS

Berkeley, CA

Academic Intern

Jan. 2021 - Present

- Assisted tutoring sections with 6 to 10 students in CS 61A (Structure and Interpretation of Computer Programs)
- Answered conceptual questions and addressed bugs in students' programs during tutoring sections and office hours
- Improved students' understanding of programming fundamentals by delivering problem-solving tips and techniques

#### UC Berkeley, Haas School of Business

Berkeley, CA

Undergraduate Researcher

Sept. 2020 - Present

- Wrote statistical classification matrix in Pandas to help researchers easily visualize discrepancies in their data
- Optimized lab's workflow by rewriting old Stata scripts to Python, enhancing data processing speeds exponentially
- Efficiently managed the infrastructure side, allowing our 20+ members to focus more on research than finding data

SKUVision San Diego, CA

Software Engineering Intern

Jul. 2020 - Aug. 2020

- Added a second layer of security in SKUVision's inventory analytics platform, integrating Google's OAuth 2.0 API
- Enhanced future users' understanding of the product by building an MVP demo in Flask

## Projects

Gitlet | Java

Private Repository (Class Project)

- Designed an efficient version control system in Java to replicate the core functionality of Git
- Implemented features such as file staging, commits, branching, merging, and tracking status
- Wrote breadth-first search algorithm to detect split points in commit history, allowing for correct branch merging

#### COVID-19 Case Visualizer | D3.js, HTML, jQuery

github.com/aravwatwani/covid

- Built an interactive visualization of the COVID-19 pandemic to easily comprehend nationwide health situation
- Executed with D3.js to handle document manipulation and used data on case totals from New York Times
- Designed and implemented drag-force physics to create interactive bubbles for each state, enhancing user appeal

#### League of Legends Skillshot | Java

github.com/aravwatwani/league

- Created a simplified 2D version of League of Legends to practice object-oriented design in Java
- Used Java Swing and Adobe Illustrator to design graphics, handle user controls, and manage character actions

# Honors

**Recipient**, National Merit Finalist, AP Scholar with Distinction, National Merit Corporate Scholarship, California State Seal of Biliteracy, CTE Information and Communication Technologies Award, Agilent Technologies Externship

## SKILLS

Java, Python, JavaScript, HTML/CSS, SQL, Scheme (Lisp), NumPy, Pandas