Jacob Bruner

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Education

University of California Berkeley, College of Engineering: **Expected Graduation: May 2021**
- Major: Electrical Engineering and Computer Science
- Relevant Courses: *The Structure and Interpretation of Computer Programs, Data Structures, Computer Architecture, Artificial Intelligence, Database Systems, Efficient Algorithms and Intractable Problems, Discrete Math and Probability Theory, Designing Information Devices and Systems I & II, Linear Algebra, Visualization for Design*

Sir Francis Drake High School: **2013 - 2017**
- Salutatorian

Skills

Computer Languages: Confident with Java, Python, SQL, Swift; Comfortable with Javascript, HTML/CSS; Familiar with C
Construction: Basic carpentry, and residential electrical systems through Marin Builders Association certification program

Work Experience

Software Engineer Intern: SS&C Advent (Java, SQL, JavaScript)   **Summer 2019**
- Integrated into Advent Genesis development team. Produced trading software for institutional managers.
- Automated the model import and export processes, a prioritized feature for new and recent sales. Parsed csv files into hierarchical class structures and exported hierarchical models into csv files.
- Exposed previously inaccessible portfolio data for users. Updated SQL queries, respective Java repositories and JSON files to bring stored data to the front end.
- Created the portfolio notes feature allowing users to save, edit and delete comments on their portfolios, thereby improving speed and transparency to critical portfolio trading decisions. Optimized portfolio notes by adding a save to portfolio list feature.

Mentor: Bridging Berkeley, UC Berkeley Public Service Center   **Spring 2019 - Present**
- Math mentorship program for underprivileged middle school youth.

Research Intern: Summer Scholar with the Buck Institute for Research on Aging   **Summer 2016**
- Interned with Dr. Mark Watson to research the effects of mitochondrial ROS on gut permeability.
- Research findings included in a successful grant request.
- Performed immunohistochemical staining, RT-PCR, dissection, smurf assays and lifespan analysis.
- Received congressional recognition from Congressman Jared Huffman.

Congressional Intern: Marin Veterans Oral History Project   **Fall 2015 - Fall 2016**
- Program sponsored by Congressman Jared Huffman's office.
- Partnered in sourcing and prescreening six veteran candidates.
- Filmed interviews with veterans and composed narratives capturing individual life stories.
- Submitted interviews, biographical information, and respective narratives to the Library of Congress for future access and preservation.

Independent Projects

Othello (Java)
- Self-playing Othello game employing a genetic learning algorithm (also human-playable).

Impossible Game (Swift)
- Side scrolling 2D game with multiple game types, texture packs and characters.

Personal Website (HTML/CSS)
- Personal portfolio.
- https://jacobbruner.netlify.com

Awards/Activities/Additional Interests

SPARK Grant Recipient: Binary Marbles   **Spring 2019**
- Built a visual simulation that illustrates the inner-workings of a computer.
- Worked as a member of a team of three, commissioned by the CITRIS Invention Lab.

UC Berkeley Men's Club Ultimate   **Fall 2017 - Present**
- Captain since May 2019, Social Chair Aug 2018 - May 2019
- Finished top 20 nationally in 2019

UC Berkeley Men's Club Soccer   **Fall 2018**

San Jose Spiders (Professional Ultimate Team)   **May 2019 - Present**

Car Restoration: 1966 Ford Mustang   **April 2015 - April 2017**