

Wills Liou

US Citizen | 925-719-9559 | willsliou@berkeley.edu | [linkedin.com/in/wills-liou](https://www.linkedin.com/in/wills-liou) | github.com/willsliou | willsliou.com

EDUCATION

University of California, Berkeley

Berkeley, CA

Bachelor of Arts in Computer Science, Applied Mathematics

Expected Graduation: Dec 2022

- Relevant Coursework: Data Structures (*Java*), Data Science (*Python*), Operating Systems (*C++*), Computer Architecture (*C++*), Intro to Machine Learning (*Python*), Advanced Algorithms, Cloud Computing
- Leadership and Activities: Course Staff, CS 61B (Data Structures and Algorithms), Berkeley Math Student Board, UPE CS Honors Society (Top 30%), Mathematics Undergraduate Student Association (Officer), Cal Judo

Las Positas College

Livermore, CA

Associate's in Business Administration, Mathematics, Computer Science

Aug. 2016 – May 2018

- Relevant Coursework: Data Structures & Algorithms (*C++*), Operating Systems (*C++*), Web Development
- Leadership and Activities: Student Government (*VP of Internal Affairs*), FBLA Finance & Cybersecurity Competition 1st Place ('17), Swim and Dive 2x NorCal Coast Conference Finalist ('17, '18), Shark Tank 1st Place ('16), Dean's Honor List ('16, '17, '18)

PROFESSIONAL EXPERIENCE

Web Developer Intern

Jan 2021 – Present

San Francisco State University

San Francisco, CA

- Implemented more efficient solutions under the Web Development team for converting Drupal 7 to Drupal 8. Played a key role in production issues, department requests, creating custom reports, and breaking down complex ideas to easy to understand solutions resulting a project completed one week ahead of schedule.
- Self-motivated and took hand-on business systems intern role to contribute more to team. Coordinate with PeopleSoft and CMS reporting tools to produce data analysis for best intelligence for critical business decisions. Designed hundreds of new SQL queries and increased visibility of bottlenecks and tracking of specific events.

Software Engineer Intern

May 2020 – Jul 2020

Unanimous AI

Berkeley, CA

- Completed technical analysis of three automation tools to quantify each one's viability, picking the best costs for simulating use cases for Unanimous A.I.'s Swarm.AI by a factor of 150.
- Communicated and recognized for ideas contributed with product and technology leadership to plan consistent, organized project milestones and to design, develop, and deploy new technology stack.

Software Engineer Intern

May 2020 – May 2020

Airbnb

San Francisco, CA

- Interrupted by COVID-19

PROJECTS

Blackjack AI | *Javascript, HTML, CSS*

Jul 2021

- Implemented object oriented Blackjack card game that uses all four pillars, polymorphism, inheritance, encapsulation, and inheritance, from scratch. Engineered design logic for all functions to follow DRY principles. Designed genetic algorithm with efficient fitness functions to find optimal solution using data over 500k hands.

Time Series Forecasting | *Python, Numpy, Pandas*

Jun 2021

- Executed market making algorithm using time series forecasting Autoregressive Integrated Moving Average (ARIMA) to analyze and model monthly patterns.

Two Sigma Halite Challenge | *C++, Unix/Linux*

Jan 2020

- Placed 1st in AI Competition after competing against top 100 players with Monte Carlo Tree Search implementation. Used an object oriented programming approach to find the most optimal attack solution with applied advanced algorithms on AI bots with machine learning in a dynamic, open source environment.

SKILLS

Languages, Technologies and Frameworks, Other: C, C++17, Python, Java, Javascript, SQL, Node.js, jQuery, AWS, Bootstrap, Docker, Kubernetes, MatLab, NS Office, Excel, IntelliJ, Windows, Linux, macOS