

# Wills Liou

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

## EDUCATION

---

### University of California, Berkeley

Berkeley, CA

*Bachelor of Arts in Computer Science, Applied Mathematics*

*Expected Graduation: Dec 2023*

- Relevant Coursework: Data Structures, Advanced Algorithms (*Java*), Data Science (*Python*), Operating Systems, Computer Architecture (*C++*), Machine Learning (*Python*), Programming Languages, Cloud Computing
- Leadership and Activities: International Collegiate Programming Contest, UPE CS Honors Society (Top 30%), Mathematics Undergraduate Student Association (Officer), Sutardja Center for Entrepreneurship

## RELEVANT EXPERIENCE

---

### Software Engineer Intern

May 2020 – Jul 2020

*Unanimous AI*

*Berkeley, CA*

- Assembled and visualized technical analysis of three automation tools to quantify viability, picking the best costs for simulating use cases for Unanimous A.I.'s Swarm.AI by a factor of 150 using a behavioral neural network.
- Refactored and reuploaded a Cloud backend AI Engine onto Amazon AWS and redesigned Swarm Interface Frontend client using AWS and Node.js with Git, OAuth, and API's. resulting in faster loading speeds, and a more cost and space efficient full-stack application

### Software Engineer Intern

May 2020 – Jul 2020

*Airbnb*

*Berkeley, CA*

- Interrupted by COVID-19

### Co-Founder, Operations

Feb 2017 – Jun 2019

*Pegasus Technologies LLC*

*Pleasanton, CA*

- Led teams to smoothly and successfully implemented customer acquirement through personalized and customized cold-emailing, genuine cold-calling, and approaching door-to-door to increase customer base and advertise business
- Executed processes and procedures to ensure the highest quality standards for our product and services, handled and negotiated with clients to ensure the best price and services.

## 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. Tested genetic algorithms with elitism (population fitting) to enable normal crossover and Monte Carlo methods using state estimation techniques and random sampling over 500k hands.

### Anomaly Detection | *Python, Java, Git*

Oct. 2019

- 2nd place at CalHacks 6.0. Coding during a hackathon with a client-based focus on the banking industry. Collaborated with team to create vision and ship out product of unsupervised machine learning algorithm that detects outliers and global anomalies using K-nearest neighbors.

### iData | *XCode, Swift, UIKit*

Jun 2021

- Implemented UI Kit to create MacOS Menu Bar App to show and track data of macOS device such as temperature readings, fan RPM, and battery levels and cycles.

## SKILLS

---

**Languages, Technologies and Frameworks, Other:** C, C++17, Python, Java, Javascript, SQL, Node.js, jQuery, AWS, Bootstrap, Docker, Kubernetes, MatLab, IntelliJ, Tableau, Windows, Linux, macOS, Swift, UIKit

## HONORS AND AWARDS

---

**Awards:** Robert E. Thunen Scholarship ('18), FBLA-PBL 1st Place Cybersecurity, 1st Place, Personal Finance ('17), LPC Shark Tank 1st Place ('16), 3x USA Mathematics Olympiads Finalist, 2x USA Computing Olympiads Qualifier('15)