

# Julian Rachman

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## EDUCATION

### University of California, Irvine

Irvine, CA

*Bachelor of Science in Computer Science*

*June 2022*

- **Relevant Coursework:** Programming with Software Libraries; Boolean Algebra and Logic; Calculus 1; Calculus 2; Introduction to Probability and Statistics; Introduction to Business Management; Principles of Accounting I
- **Future Coursework:** Intermediate Programming; Data Structure Implementation and Analysis; Introduction to Software Engineering; Discrete Mathematics for Computer Science

## WORK EXPERIENCE

### The Aerospace Corporation

El Segundo, CA

*Technical Intern, STARS Mission Operations Center*

*June 2017 – Present*

- Developed Python-based instant messaging system for logistical launch operation changes using Twilio back-end API framework; utilized by over 30 members of the launch support staff
- Analyze architectures for post-flight telemetry analysis by using frameworks from Numenta and raw telemetry data from past launches; accelerate launch frequencies for SpaceX by approximately 20%
- Contributed to paper on synthetic telemetry for abnormality detection by benchmarking different anomaly detection methods using the generated telemetry; sparked new area of research for other scientists

### Information & Computer Science Student Council

Irvine, CA

*Projects Committee Member*

*October 2018 – Present*

- Introduce advancements to current system for graduation and quarterly course planning to make it easier for students to develop their college roadmap without having to rely completely on in-person advising which caters to thousands of students on campus

## SELECTED INDEPENDENT PROJECTS

### Algorithmic Stock Options Trade Advisor

*Python; JavaScript; HTML*

*November 2018 – Present*

- Utilize and incorporate multiple trading strategies, including RSI and MACD, to provide guidance to users for the buying and selling of stock options
- Implement interactive real-time display for providing users with visualizations of the data and calculations

### Bananagrams Online

*Python; Objective-C*

*July 2018 – Present*

- Digitalize a classic word game and transform it into a mobile format to provide the ability to play the game on the go for thousands of mobile users; currently waiting to beta-tested using TestFlight
- Develop simple algorithms to deal with complex game situations and unconventional moves, and utilize sockets and connective API's to enable the player-versus-player capability for enhancing the user experience

### AstroEqs

*C++*

*April 2017*

- Developed an astronomical calculator for national Science Olympiad competition which help our team win first place and became a technical resource to other Southern California schools
- Studied necessary mathematical concepts specific to elementary astrophysics in order to be able to translate equations into programmable syntax and designed GUI to make program capabilities easily accessible to any user

## SKILLS, ACTIVITIES & INTERESTS

**Technical Skills:** Proficient in Python; Familiar with SQL and C++; Experienced with Git, Unix/Linux, iOS, and AWS

**Activities:** Lambda Phi Nu (Active Partner); American Institute of Aeronautics and Astronautics (Student Member); Chinese Association (Member); Ice Hockey (Captain)

**Interests:** Options Trading; Travelling; Playing Bassoon and Trumpet; Teaching; Ice Skating