

# Alex Barajas

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[AlexBarajas1996@gmail.com](mailto:AlexBarajas1996@gmail.com) | [Github](#) | Hoboken, NJ

## PERSONAL PROJECTS:

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### Ideal Weekly Iron Condor

- Use software written with Python to provide the strike prices of an equity that will produce an iron condor to provide weekly income of 12% to 20% of margin used with an 80%+ chance of profit for the upcoming week
- Calculate the optimal greeks (Delta, Gamma, Theta, Vega, Rho) for a set of options from the TD Ameritrade options chain application programming interface (API) based on news and user sentiment
- Implement every Monday morning to select the strike prices nearest to the hypothetical estimates for an iron condor expiring the upcoming Friday to provide weekly income with an 86% chance of profit in 2020
- Incorporate PythonAnywhere so trades can execute on a TD Ameritrade account while a user is sleeping

### Song Lyric Translator

- Extract lyrics of a song inputted by the user from a website using the requests module and BeautifulSoup
- Open a webpage on [deepl.com](https://www.deepl.com) using the Selenium WebDriver remote control interface where the lyrics are translated in the language the user chooses and is used to study a language

### Random Password Generator

- Obtain the password criteria from a website's HTML code using web scraping and the BeautifulSoup library
- Store the new password in a JSON or csv file along with previously generated passwords using Pandas

## WORK EXPERIENCE:

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### Partner Engineering and Science, Inc., *Project Manager*, Remote 08/19 - Present

- Perform financial analysis for \$5M to \$100M+ projects provided by real estate investment trusts (REITs)
- Made a Python program using the Tkinter graphical user interface (GUI) library that provides the template for 12-15 monthly risk management reports which save an average of 6 working hours per financial report
- Research the current housing market to estimate the financial risk of investing in, and maintaining 1-8 commercial real estate (CRE) assets using Microsoft Excel financial models and a valuation model
- Manage a team of 2-3 team members per project and delegate tasks to be completed for the project

### Property Solutions, *Assistant Project Manager*, Edison, NJ 09/18 - 08/19

- Mitigated credit risk with the monthly analysis of 12-15 project investment loans, using change orders, cost and performance parameters for projects with budgets from \$2M to \$50M+
- Consulted with 4-8 clients per project in response to data requests and to negotiate technical solutions
- Attended 8-12 monthly virtual and in-person investment due diligence meetings to discuss project documents

## EDUCATION:

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### Stevens Institute of Technology, Hoboken, NJ 08/14 - 05/18

Bachelor of Science in Mechanical Engineering

GPA: 3.61/4.0

### Eco Car Senior Design Project, *Project Manager*, Hoboken, NJ 08/17 - 05/18

- Constructed the carbon-fiber body for a car that is powered using a hydrogen fuel cell to be used in the Shell Eco-Marathon race using SolidWorks to have a drag coefficient of 0.13 and a top speed of 27 MPH

## SKILLS AND INTERESTS:

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- **Skills:** Python, R, SQL, Swift, C++, HTML, CSS, OOP, Matlab, Mathematica, Git, Selenium
- **Languages:** English (Fluent), Spanish (Fluent), Japanese (Novice)
- **Interests:** Exercising, language learning, traveling, making music, denim, sneakers, reading, stock trading