

Alex Barajas

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PERSONAL PROJECTS:

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:

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:

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:

- **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