

# Alex Barajas

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## WORK EXPERIENCE:

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- Axoni, Software Engineer, Remote** 03/22 - Present
- Automate highly scalable consumer-facing applications using Axoni's Ethereum-based blockchain
  - Develop code in Scala to enhance Axoni's Ethereum-based blockchain, AxCore, to be used by financial institutions
  - Interview potential hires on their data structures and algorithms submissions during coding interviews
  - Modify software using JavaScript and the Cypress framework based on the needs of each client
  - Collaborate with a team of 3 software engineers to update and test equity swaps on the Veris network
- Tinkeroo, Software Engineer, Remote** 01/21 - 03/22
- Conducted data analysis for 300+ users of the Hop Royale mobile game using Python and the Pandas library
  - Modeled weekly user retention trends for 12+ Hop Royale game levels using Python and the Jupiter Notebook
  - Composed 20+ songs that are used as the soundtrack to the game using the Max programming language
  - Discussed ways of making the Hop Royale game more user-friendly with users via Discord
- Partner Engineering and Science, Inc., Staff Assessor, Remote** 08/19 - 01/21
- Performed 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

## PERSONAL PROJECTS:

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- Ideal Weekly Iron Condor**
- Software program using Python to process the price and risk in an iron condor to provide weekly income of 12% to 20% of margin used with an 80%+ chance of profit
  - Calculate the greek derivatives (Delta, Gamma, Theta, Vega, Rho) for a set of options from the TD Ameritrade options chain application programming interface (API)
  - 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 83% chance of profit in 2020
  - Resulted in an average of \$670 profit per week in 2021 up to December 2021 from the iron condors

**Net Worth Estimator**

- Imports financial data from various APIs for assets such as stocks and crypto and plots it using the Matplotlib library
- Extracts data from a website that does not have an API using the requests module and the BeautifulSoup library
- View visual graphs indicating technical analysis for selected assets in a Jupyter notebook
- Uses the NumPy library to estimate your future net worth based on prior data that is analyzed using machine learning

## 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, SQL, Swift, Scala, HTML, JavaScript, jQuery, Node.js, EJS, React, MongoDB, Matlab, GitLab
- **Languages:** English (Fluent), Spanish (Fluent), Japanese (Novice)
- **Interests:** Exercising, language learning, traveling, making music, denim, sneakers, reading, stock trading