



InvestBot

Investment Made Easy

Project 2 | Team 1

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Outline

The Problem

Solution Proposal

Wireframes

Interactive Demo

Machine Learning

Next Steps

Lessons Learned

Problem Statement



A growing number of tech savvy college students and millennials are opening brokerage accounts, with little financial experience, inspired by the recent black swan market and the nuanced FIRE strategy (financial independence and retire early).

Despite the increased popularity of robo advising, there is not yet a dominant NLP robo advisor that can deliver financial news, portfolio customization and trade execution by verbal request.





Our Solution...

We are [InvestBot](#), the next generation robo advisor and cutting edge investment tool!

- Our app will be available on your smart devices: Amazon Alexa, Google Home, Siri, etc..
- Our customized investment recommendation is backed by extensively tested machine learning technology, gone thru years of backtesting.
- We leverage Amazon Developer Console, AWS Data Exchange to deliver a world class tool with:
 - Conversational interface (voice or text).
 - One-stop-shop for portfolio simulation, financial data, news and connection to brokerage account for real time trade execution and reporting.
 - Bonus: financial dictionary for newbies!



Business Model

Free Membership:

- Under 18, all access with restriction from trade execution.
- Over 18, all access with 50 equity trades per month.

Paid Membership:

- Over 18, accredited member with all access and unlimited real time trade execution of a wide range of security types.

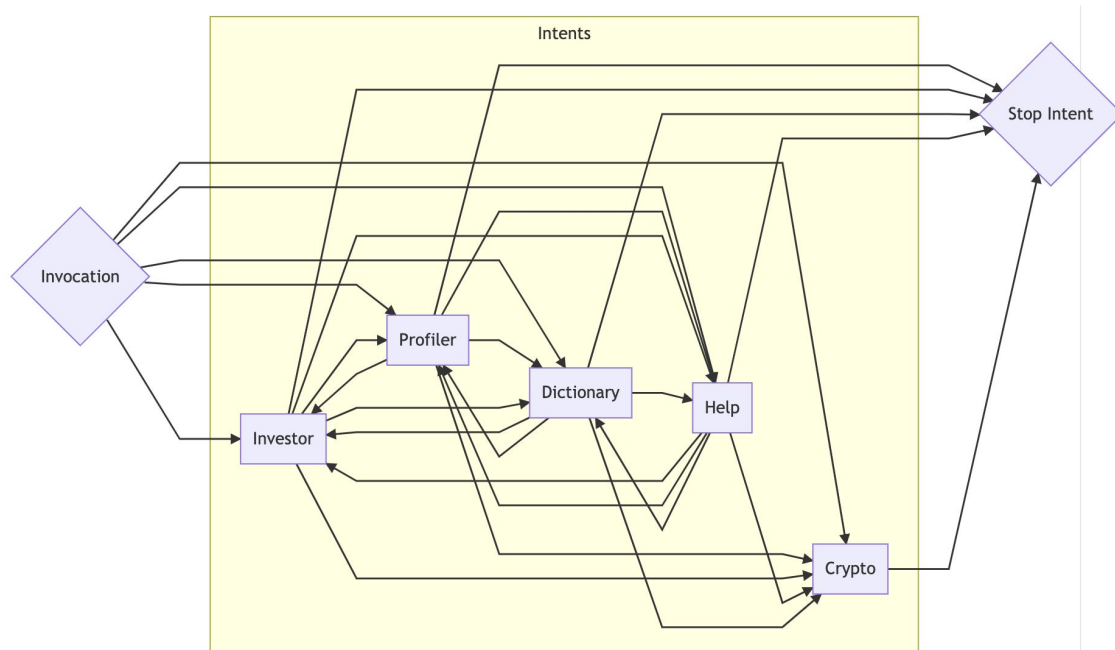
First Two
Years...

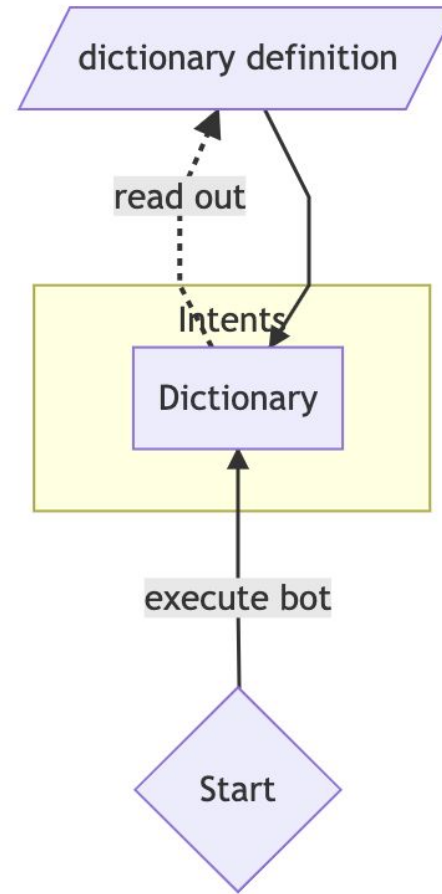
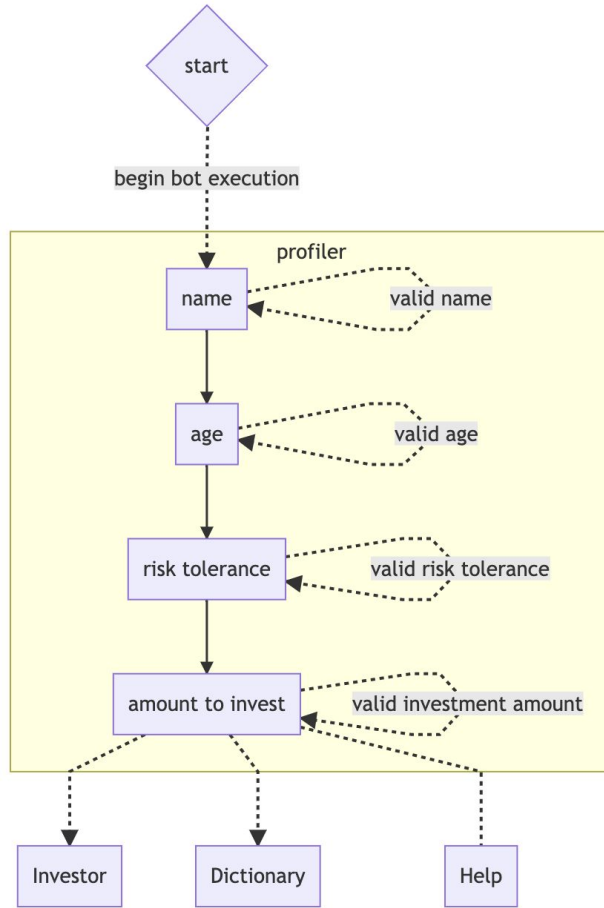


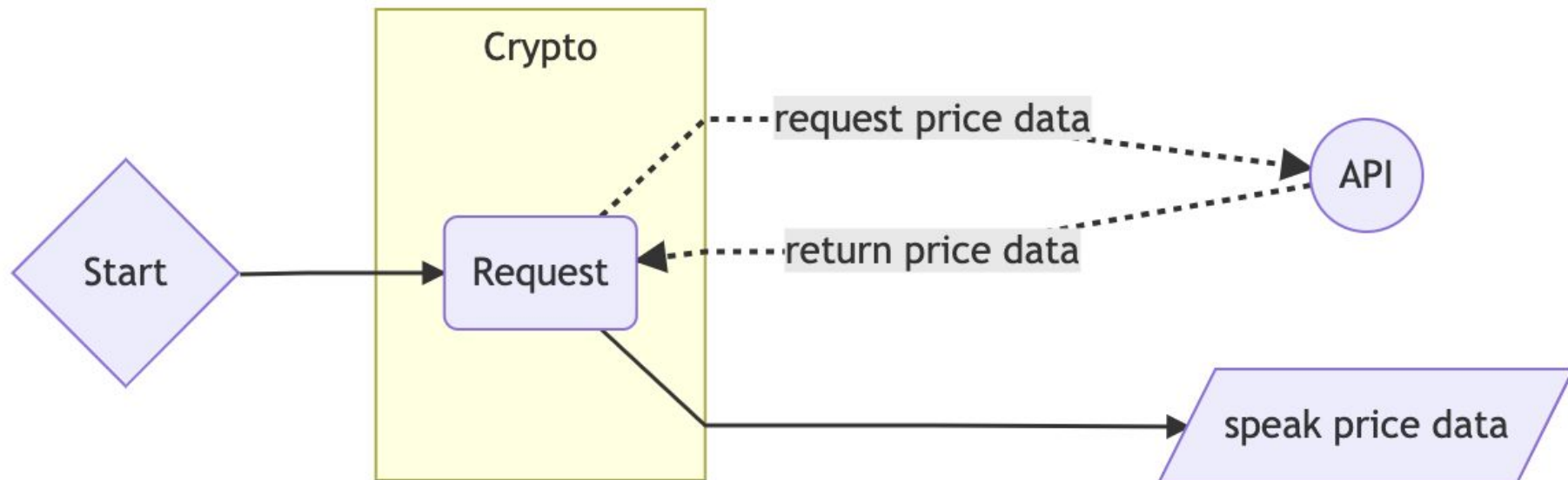
Third Year
onward...



Main Systems Architecture









Live Demo!



amazon alexa

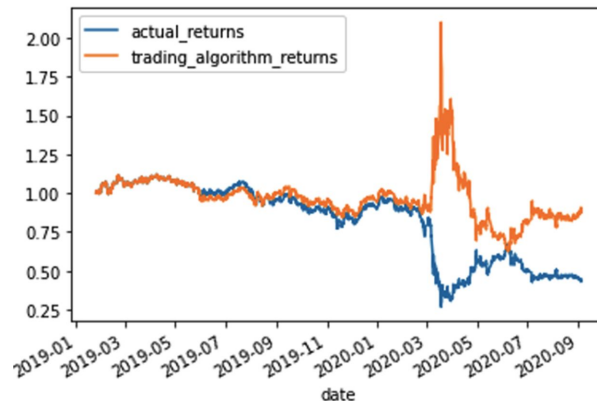


Proven Success with Machine Learning Models

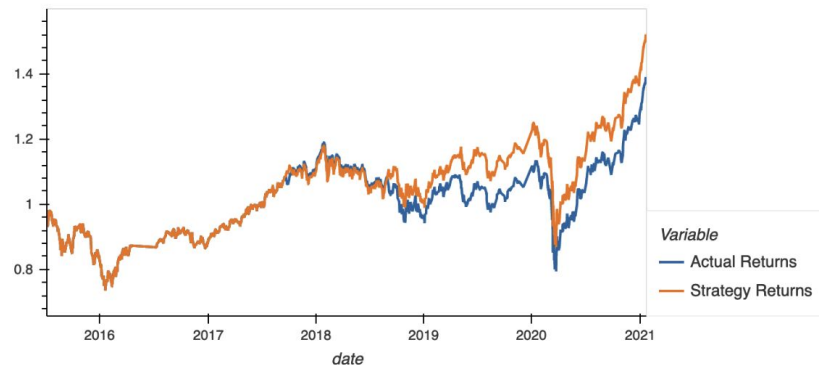
InvestBot sources data from large and small cap U.S. equities with 10+ years of historical prices and we have developed several machine learning models to propose appropriate investment strategies for each user.

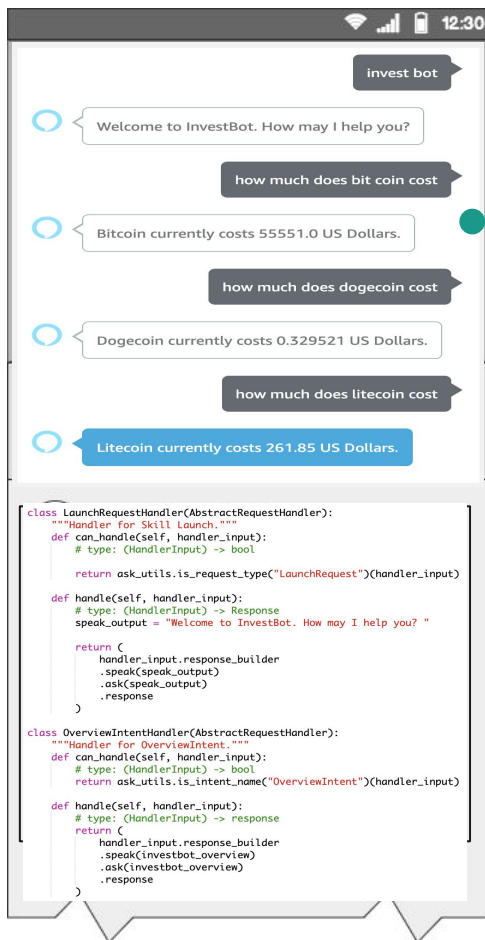
All of our models are backed-tested to ensure that prediction accuracy is reliable .

Apple's **actual return** vs InvestBot **machine learning / strategic returns**:



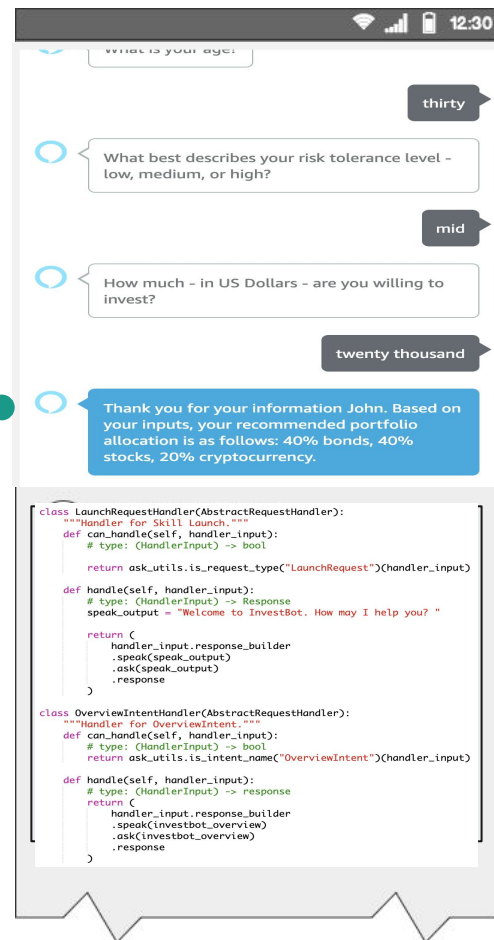
Amazon's **actual return** vs InvestBot **machine learning / strategic returns**:



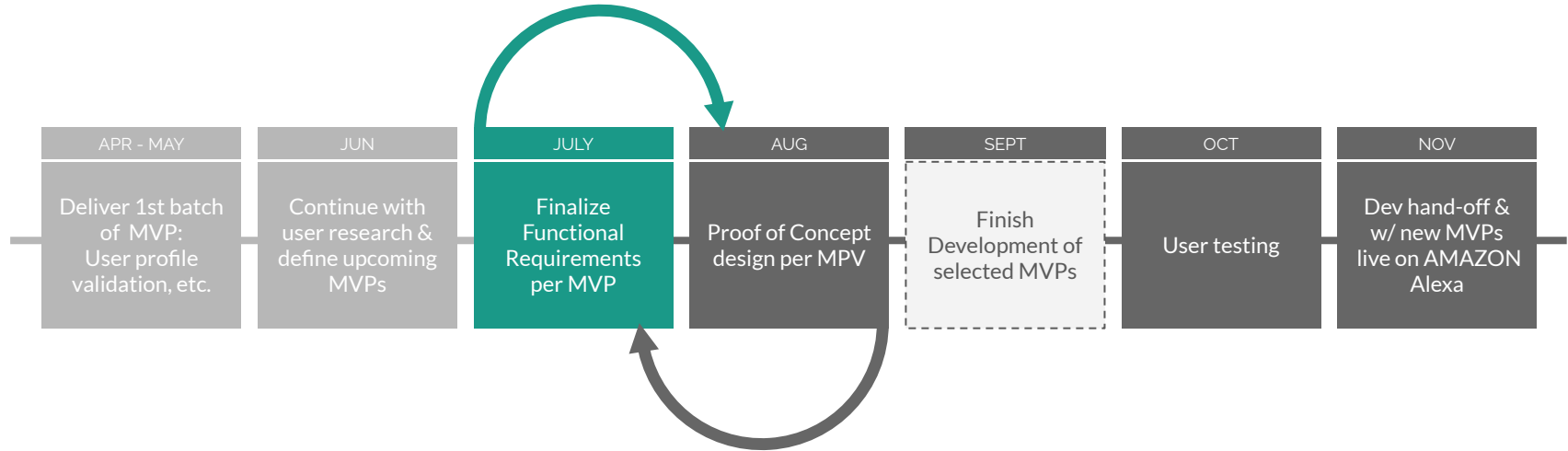


InvestBot provides current price data for cryptocurrencies and stocks

InvestBot makes portfolio recommendations based on the user's profile



Next steps... continued design & development





Lessons learned

- AWS Lambda's python code is proprietary, which makes code writing a bit challenging.
- Incorporating API for real time pricing with Amazon Developer Console had a few setback as well.
- Not all machine learning models are made the same. We applied 4+ different models and adjusted different parameters to make it work.
- Amazon Alexa Skill distribution requires hefty verification and testing through Amazon.



Questions?

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