

# Muhammed Ahmed

<https://mahmed13.github.io/>

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U.S. Citizen

## EDUCATION

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- **University of Georgia** Athens, GA  
*B.Sc. in Computer Science; GPA 3.64*  
*Certificate in Applied Data Science, Artificial Intelligence Pathway* Expected Fall 2018

## EXPERIENCE

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- **Mailchimp** Atlanta, GA  
*Data Science Intern* Summer & Fall 2018
  - **Contact Rating:** Subscriber engagement scoring system guided by my data research, statistical analyses, and user-defined use cases. Currently being deployed as an engagement metric to 14+ million active users.
  - **Customer Lifecycle Stages:** Probabilistic e-commerce model written in Python. Derived from estimated customer lifetime value. Currently being deployed to 60,000+ active e-commerce users.
- **Quinn Research Group** Athens, GA  
*Machine Learning Researcher* Fall 2017 – Fall 2018
  - **Deep Portfolio Asset Management:** Time-series forecasting using deep reinforcement learning algorithms on cryptocurrency exchange assets. Simulated a 32x return on back-tested periods between 2015-2016.

## HACKATHONS AND LEADERSHIP

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- **HackHarvard 2018** Harvard University  
*Best Use of Algolia's Search API* Fall 2018
  - **SimpliCT:** Web platform for connecting patients with uncured diseases to clinical trials. Utilizes Algolia's search API and various Google Cloud Services. Available in any language.
- **PennApps XVIII** University of Pennsylvania  
*Top 30 Hack (of over 200 submissions)* Fall 2018
  - **FullyFit:** Used live brainwave and activity data from the Muse Headband and Fitbit to create a wellness hub iOS app. Machine learning assisted fitness goal achievement. Brainwave activity used to assess mental state and monitor sleep cycles.
- **UGAHacks III** University of Georgia  
*Hackathon Winner* Spring 2018
  - **Google Assistant Challenge:** Voice-activated book recommender for the Google Home the using Google Cloud Services, Dialogflow, and GoodReads.com data.
  - **Uber Data Analytics Challenge:** Anomaly detection using Uber ride data modeled as a Barabási-Albert mechanism. Optimized ride request times. Constructed a random walks matrix.
- **Advanced Technology Development Center** Georgia Institute of Technology  
*Startup Accelerator* Spring 2018
- **Deep Learning @ UGA** Athens, GA  
*Vice President* Spring 2018 – Fall 2018
  - Identified and booked speakers with impressive work in deep learning. Expanded our outreach to other interest/research groups and doubled our meeting attendance in one semester.
- **University of Georgia Rugby Club** Athens, GA  
*Social Chair* Spring 2017 – Fall 2017

## PROJECTS

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- **NFL Predictions:** Retrieved and processed all player game logs, combine, and injury data for every player. Our XGBoost ensembling beat out some paid online predictors on unseen data.
- **Bitcoin Volatility:** Explained Bitcoin's price volatility using a combination of economic features. Our KNN Regression was able to interpolate the unseen data points with a 5-fold cross-validation score of 0.95.

## PROGRAMMING SKILLS

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**Languages:** Python (3 years), Java (6 years), C++, C, SQL, R, UNIX, Swift, L<sup>A</sup>T<sub>E</sub>X

**Frameworks:** Scikit-Learn, Pandas, Numpy, Jupyter Notebooks, Google Cloud Platform, TensorFlow