# <u> Fiffany McKenzie</u>

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### **EDUCATION**

#### Stanford University - Stanford, CA

Major: Symbolic Systems

Honors/Awards: Artificial Intelligence Natural Language Processing Patent Inventor (2018), American Psychiatric Association Innovation Lab Finalist (2017), Dean's Award for Academic Excellence

Relevant Coursework: Managerial Economics of Cryptocurrencies, Computer Vision, High Level Vision - From Neurons to Deep Neural Networks, Principles & Techniques of AI, Big Data Analytics, Behavior Design, Startup School, Web Development, Programming Methodology & Abstractions, Independent Study on Blockchain

## **INTERNSHIPS & FELLOWSHIPS**

#### Facebook, Data Science Intern

•Feature engineered, architectured, implemented and tuned several different machine learning algorithms including: lasso regression, linear regression, logistic regression, gradient boosted decision tree, and random forest models to determine which models would be the best at detecting ambiguous and mislabeled content. The final implemented model resulted in the detection of 30x more mislabeled content than previous existing model.

•Collaborated with product managers, engineers and other cross functional team members to put the mislabel detection model into production

•Developed a framework that uses data driven signals to systematically diagnose the specific causes of content mislabeling

#### Salesforce, Data Science Intern

•Designed and implemented the Conversation Explorer tool (patent pending) - exploratory data analysis and visualization tool that enables semi-supervised learning. The tool's feature set includes sentiment analysis, conversation zoom, clustered utterance plot, suggested agent response grid, a visual utterance recommender and an utterance intent search tool.

•Used k-means clustering to enable better utterance and customer service case classification

•Used machine learning, deep learning and natural language processing techniques, including Word2vec and t-SNE, to embed utterances as multi-dimensional vectors

•Took the project from broad open-ended idea to ready-to-pilot patent-pending prototype in under 12 weeks.

### **TECHNICAL PROJECTS**

#### Bitcoin Time Series Price Prediction Model - Bridging the Gap Between Bitcoin Velocity and Speculation Stanford, 04/19 - 06/19

•Developed an algorithm for quantifying bitcoin speculation and proposed a pricing model for cryptocurrencies in the price discovery phase that incorporates the speculation metric

•Implemented bidirectional LSTM for predicting bitcoin prices, and carried out feature analysis to gain insight into the predictivity of the speculation metric, in comparison to other metrics such as coin velocity. The final model demonstrated that the speculation is very highly predictive of price, and ultimately the final LSTM model outperformed the previous best performing price predictor by 10x.

#### **BJ Fogg's Behavior Design Lab : Study on Confidence in the Blockchain Space**

- Investigated how confidence boosts may affect a person's likelihood to engage in the cryptocurrency and blockchain space.
- Developed a new behavior research study design protocol for the investigation of the behavioral implications of confidence

• Carried out the pilot study and analyzed results in order to understand how confidence may contribute to asset bubble effects and engagement in the cryptocurrency and blockchain space across diverse demographics.

#### Social Media Web App

- Modelled app architecture and implemented critical portions of web app's backend such as user-authentication, social media login, cloud based messenger, user matching algorithm, and firebase database.
- Piloted the beta version of webapp and used user feedback to optimize onboarding flow in registration process.

• Audience Choice Award recipient for pitch presentation at the American Psychiatric Association's Innovation Lab (competing against university psychiatry professors, startup CEOs, and medical doctors).

#### **PUBLICATIONS**

#### Technological Ventures Offer New Hope for the Future of Psychiatry

•MD Vasan, N., McKenzie, T. D., MD Chaudhary, N. P., MD Aragam, G. G., Nagpal, A., Chen, C. (2017). Technological Ventures Offer New Hope for the Future of Psychiatry. Psychiatric Times.

#### ADDITIONAL INFORMATION: Technical Skills: Python, C++, Javascript, Java, HTML, CSS, SQL | Github:

https://github.com/tmckenzie51?tab=repositories | Languages: Fluent in Jamaican Patois, working proficiency in Spanish | Awards: Code 2040 Fellow '17, Top 10 in Jamaica Math Olympiad ('11 and '12), Davis Scholar, McCaw Scholar | Interests/Other: Yoga, Meditation, Dancing

#### San Francisco, 06/18 - 09/18

Class of 2020

**Concentration:** Artificial Intelligence

Seattle, 06/19 - 09/19

Stanford, 02/17 - 12/17

Stanford, 04/19 - 06/19