# **ANTONI TONEV**

Senior Machine Learning Engineer

tony@tonythinks.com http://tonythinks.com +1 415-234-3404

#### **SUMMARY**

Senior machine learning engineer with a software engineering background (7+ years of experience) and a solid understanding of data science. Bachelors in Computer Science from University of Kansas. Have a software patent in accessibility. Contribute to open source projects such as Tensorflow. Have a wide range of data science projects in portfolio including NLP, EEG brain scan modeling, recommender systems, and facial recognition. Have worked on software that scales to millions of users at salesforce.com. Writer on technical topics for Analytics Vidhya, DataDrivenInvestor.com, and Medium. Aim to apply cutting edge research to real world applications that work every time. Excited to tackle big challenges and invent the future.

### **MACHINE LEARNING PROJECTS**

Brain Wave (EEG) Pattern Detector to Control Computer by Thinking Chicago Gang Violence Threatening Tweets Classifier with Omdena Recommender System for Jokes on Analytics Vidhya Facial Recognition Login System
Scrabble AI

### **WORK EXPERIENCE**

Position Senior Machine Learning Engineer

Company Change Healthcare

Location Remote

Dates 01-2021 – present

Lead a team which deploys ML/AI models to production in AWS with tools written in Python. Products include reading medical charts with OCR and NLP, separating out medical encounters, and recognizing insurance codes from text. Created reusable infrastructure for deploying models, monitoring logs, secure API's, and alerting if there is a problem, which made the organization more efficient and iterate faster.

Position Machine Learning Engineer

Company eBay Location Remote

Dates 06-2020 – 12-2020

Combining data science with software engineering to provide high-quality automated customer service. Trained neural networks, including fine tuning BERT. Implemented algorithms from research papers.

Position Machine Learning Engineer

Company Voice4Impact Location Remote

Dates 08-2019 – 03-2020

Developed an NLP model to classify threatening tweets from high-crime areas. Deployed this machine learning model to AWS to automate tweet classification in real time, which helped the company attract a contract with the Delaware Department of Transportation.

Position Software Engineer
Company Salesforce.com
Location San Francisco, CA
Dates 02-2011 – 04-2017

Full stack developer working with Javascript/CSS in the frontend, Java and PL/SQL on the backend, and API's to bridge the gap. Helped invent new technology which resulted in U.S. Patent No. 10,579,222. "Keyboard access to hover functionality." It helps people with disabilities interact more easily with modern user interfaces. Improved the mobile app experience for iOS and Android and increased adoption by 60%. Improved performance of integration with Twitter API which reduced API calls by 75%, saving money. Enhanced security of customer data by implementing encryption and closing vulnerabilities, increasing customer trust and retention.

Position Software Engineer in Test

Company Perceptive Software Location Shawnee, KS Dates 01-2011 – 09-2011

Implemented an automated testing framework to catch bugs earlier and increase code quality. Trained non-programmer QA team how to write tests to make them more productive. Enhanced memory management by implementing an automatic memory leak detector as part of the build process.

# Other Experience

- **IBM** Improved quality of product through integration and stress testing
- KU Geological Survey Worked on software which predicts what materials are underground using seismic data for geophysicists
- Future Delivery Web development for a social network
- Quadplex Developed a Scrabble AI that plays against human players online

### **EDUCATION**

## University

B.S., Computer Science, 2010, University of Kansas, Lawrence, Kansas, USA

### Online

- Machine Learning Andrew Ng, Stanford
- Deep Learning Specialization Coursera
  - Neural Networks and Deep Learning
  - Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
  - Structuring Machine Learning Projects
  - Convolutional Neural Networks
  - Sequence Models
- Code-First Intro to Natural Language Processing fast.ai
- Fundamentals of Reinforcement Learning University of Alberta

# **TECHNOLOGIES**

Python, Java, C/C++, Javascript, NumPy, Pandas, scikit-learn, nltk, TensorFlow, Keras, PyTorch, Gensim, fast.ai, XGBoost, SQL, Amazon Web Services (AWS), HTML, CSS, XML, Oracle PL/SQL, REST and SOAP APIs, Selenium Web Driver, JUnit, xUnit, multi-threaded programming, Ubuntu Linux, Perforce, Git, Jenkins, memcached, encryption, docker