

# Hongda Shen

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## Technical Summary

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- \* Python, Tensorflow, SQL, Spark, Matlab, C/C++, CUDA, HTML+CSS.
- \* Authored/Co-authored 10+ peer reviewed publications in leading data mining and computer vision journals and conferences.

## Professional Experiences

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- **Bank of America** **New York, NY**  
**Machine Learning Data Scientist** **Mar. 2018 – Present**
  - \* Building advanced machine learning models to detect fraud in all bank transactional channels by leveraging modern deep neural network techniques including Autoencoder, CNN, RNN and GAN.
  - \* Achieved excellent performance in all business metrics showing great potential to reduce money loss by approximately 20% compared to the state-of-the-art solutions.
  - \* Developing new architectures of neural networks to enhance model performance using domain knowledge from experts and augmented features.
  - \* Developing visualization tools for internal data science teams to monitor data quality over time.
  - \* Mentoring junior data scientists to gain familiarity of our fraud prevention framework and guiding them into areas they are passionate about.
- **Johnson & Johnson Health and Wellness Solutions** **New Brunswick, NJ**  
**Data Scientist** **Apr. 2017 – Mar. 2018**
  - \* Developed machine learning (deep learning) based frameworks for health behavior change prediction and intervention.
  - \* Developed a new recurrent neural network architecture to forecast the chance of missing medication for Care4Today<sup>®</sup> Mobile Health Manager app users and achieved an AUC score of 0.94.
  - \* Developed a drug name matching algorithm using word2vec and autoencoder techniques.
  - \* Built interactive dashboards to monitor patients' behavior changes over time.

## Education

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- Ph.D. in Electrical Engineering, University of Alabama in Huntsville *2013–2016*
  - \* Minors: Computer Science and Math
  - \* Track: Machine Learning and Data Compression GPA:3.82/4.00
- M.S. in Electrical Engineering, Western Carolina University *2011–2013*
  - \* Track: Computer Vision GPA:3.92/4.00
- B.S. in Electrical Engineering, Anhui Polytechnic University *2007–2011*
  - \* Track: Control Theory GPA:3.53/4.00