# Shannon (Shengnan) Cao

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#### **SUMMARY**

Innovative software engineer interested in full stack web application development, and data engineer positions.

# **COMPUTER SKILLS**

- Languages: Extensive experience in Javascript, Python, HTML5, CSS3; experience in R, Java, Solidity, Scala
- **Knowledge**: Full stack web development, mobile development(iOS, Android), machine learning (NLP), data mining, databases
- **Tools**: Node.js, ExpressJS, React, MongoDB, NLTK, scikit-learn, Tensorflow, React-Native, React-Redux, socket.io, AWS Elastic Beanstalk, Heroku, DigitalOcean

### PROFESSIONAL EXPERIENCE

# **Public Peer Review Platform** *Full stack web developer*

Cambridge, MA

Oct. 2018 – Feb. 2019

- Web development
  - Designed and coded a two-side user web platform (<u>www.researchrev.org</u>) and social networking web app (<u>https://morning-waters-23416.herokuapp.com</u>) from sketch using Node.js, ExpressJS, React, MongoDB
  - Implemented RESTful APIs, structured navigation and architecture, built core features including authentic system, file uploader, community, like- and view-counter
  - Collabrated with UX/UI designer to design framewares and implemented front-end with React and Redux, deplyed the web app on DigitalOcean and Heroku
  - The project was selected into MIT internal incubator, Sandbox and received a special fund from MIT Grad Student Council and MIT Library.
- Data mining
  - Wrote web crawlers to mine and stream massive data from open source forums using Python scripts
  - Visualized data with ggplot in order to analyze relationship partterns

L.L.Bean Boston, MA

Machine Learning Internship

March 2018 – June 2018

- Performed cleaning and stemming over 8000 text data with nltk library, extracted features using CountVectorizer
- Implemented Naive Bayes, Logistic Regression, MLP and SVC using TF-IDF plus ngram to predict review's context giving 85% accuracy rate
- Predicted sentiment using deep learning algorithms including RNN and LSTM model with the help of Tensorflow

# **Divinity Studio Corp**

Boston, MA Summer 2018

co-founder/ web developer

• Designed and coded AI Chatbot Web app (<a href="https://ai-chatbot-application.herokuapp.com">https://ai-chatbot-application.herokuapp.com</a>) with Node.js, socket.io, deployed the app on heroku

## **PUBLICATIONS**

• Z. Li, **Shengnan Cao**, et al, Understanding inbound and outbound knowledge flow in open source hardware companies using community network analysis, IDETC/ICE, ASME 2019

## **EDUCATION**

# **Northeastern University**

Boston, MA

July 2018

M.S. in Informatics

**GPA:** 3.87 / 4.0

Courses: Algorithms, Database Management Systems, Programming Foundations for Digital Media in Java, Computer systems and Networks, Web Creation Boot Camp, MIT 6.148 Web Lab

China Women's University

Beijing, China *June 2015* 

B.S. in Finance