

Shannon (Shengnan) Cao

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SUMMARY

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

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:** NLTK, scikit-learn, Tensorflow, Node.js, ExpressJS, React, MongoDB, React-Native, React-Redux, [socket.io](#), AWS Elastic Beanstalk, Heroku, DigitalOcean

PROFESSIONAL EXPERIENCE

Core member / Full stack web developer

Oct. 2018 – Feb. 2019

MIT CAD Lab

Cambridge, MA

- Co-initiated PPRP, a disruptive online public peer review platform (www.researchrev.org), to accelerate current research publication process and promote collaborations among researchers. This project was selected into MIT internal incubator, Sandbox and received a special fund from MIT Grad Student Council and MIT Library
- Designed and coded a file management web application and a social networking web app from sketch using **Node.js, Express.js, React, MongoDB**
- Implemented RESTful APIs, designed navigation and architecture, built core features including authentic system, file uploader, community forum, like- and view-counter
- Collaborated with UX/UI designer to create wireframe and implemented front-end with React and **Redux**, deployed the web app on **DigitalOcean and Heroku**
- Developed web crawlers to mine and stream massive data using **Python**, visualized data to analyze patterns

Machine Learning Internship

March 2018 – June 2018

L.L.Bean

Boston, MA

- Assisted data scientists conducting sentiment analysis of customers' comments on social networking platforms, to understand and predict consumers behavior in online community
- Predicted sentiment using deep learning algorithms including RNN and LSTM model with **Tensorflow**
- Predicted incoming reviews giving 85% accuracy rate using **scikit-learn** library with packages including Naive Bayes, Logistic Regression, MLP and SVC
- Cleaned over 8000 text data with **NLTK** library, extracted features using CountVectorizer

Internship

Dec. 2017 - Jan. 2018

Deloitte Consulting

Beijing, China

- Served in digital service line, supported to analyze financial data and perform data visualization
- Collected and analyzed financial data of world top 20 vehicle manufacturing companies, presented findings to the manager
- Visualized sales data using **Tableau**, created sales and dealers geography distribution maps for a leading tire company, the results of data visualization were used in final report

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, *M.S. in Informatics*

Boston, MA

GPA: 3.87 / 4.0

July 2018

China Women's University, *B.S. in Finance*

Beijing, China

June 2015