# Zhou (Susie) Shen

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#### **EDUCATION**

#### University of Southern California, Viterbi School of Engineering

Aug 2019 – May 2021(expected)

M.S. in Electrical Engineering | GPA: 3.91 / 4

Southwest Jiaotong University, School of Information Science and Technology

Aug 2015 - Jun 2019

B.E. in Telecommunication Engineering | GPA: 88.03 | Ranking: 9 / 151

SKILLS

Language: C / C++, Java, Python, JavaScript, HTML, CSS, SQL

Framework: Node.js, React, Redux, Express, Django, Bootstrap, RESTful

Database: MongoDB, PostgreSQL, MySQL

Tools: Git, Docker, Keras, Heroku, Gunicorn, Nginx, Adobe XD, Wireframing

#### **PUBLICATION**

**Zhou Shen**, Gang Liu, Zhiguo Ding, Ming Xiao, Zheng Ma, F. Richard Yu, "Optimal Power Allocations for 5G Non-Orthogonal Multiple Access with Half/Full Duplex Relaying", IEEE ICC 2019.

#### INTERNSHIP

#### **RezScore Inc.** | Software Engineer Intern

May 2020 – Aug 2020

- Worked in full stack development team for developing and maintaining the Lead Generation management system
- > Created wireframes using Adobe XD to design the dashboard and developed the front-end interface using React
- > Implemented server-side back-end service using Django framework, along with PostgreSQL for RESTful API
- Automated email process that sends topline summary to users using SendGrid API, improved activations rate by 20%

**Wayfair Inc.** | Software Engineer Intern | Internship canceled due to COVID-19

May 2020 - Aug 2020

#### HealthOne Software Development Co., Ltd. | Software Engineer Intern

Jul 2017 – Aug 2017

- Recommended treatment based on diagnosis using K-Nearest Neighbor (KNN) and Decision Tree (DT) algorithms
- > Preprocessed and constructed the dataset using MySQL, implemented algorithms above with Weka in Java
- Result: breast hyperplasia (DT: 89.5%, KNN: 89.4%), acute bronchitis (KNN: 53.0%), pregnancy (KNN: 37.6%)

## PROJECTS

#### **InternConn** | Web Development | Founder

- Founded a platform to connect students impacted by COVID-19 with remote research and internship opportunities
- > Developed interactive web pages based on MVC with Express.js framework
- > Deployed server to Heroku(www.internconn.com) and maintained projects information using MongoDB Atlas
- Outreached to more than 20 companies, 300+ students submitted applications, 10k visits in one month

#### Candle | Web Development

- > Developed a Node.js web application with RESTful routes where users can browse and share a variety of candles
- > Built dynamic webpages using EJS templates with Bootstrap and Flash messages
- Implemented authentication and authorization using Passport.js with MongoDB as database

# Student Registration App | Android Development

- > Created a student information registration application with the Android development environment
- > Implemented the function: students could register with name, gender, student card number, class number and hobbies
- > Designed user interface, finished the programming and tested the application successfully

## **Hyperspectral Image Classification System** | Machine Learning

- > Classified hyperspectral data with Deep Believe Network, Stacked Auto Encoder, Convolutional Neural Network
- > Pre-processed the data and tested the three algorithms above using Indian Pines database in Python
- Achieved classification accuracy of 82%, 87% and 96% while applying DBN, SAE and CNN respectively
- Selected as a national project, ranked top 10% of 864 registered teams