

# Xue (Sue) Yang

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## Work Experience

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### Tabula Rasa Healthcare (TRHC)

Moorestown, NJ

#### Data Analyst

2020

Work with internal and external clients to turn disparate data sets into actionable insights by designing and implementing dashboards and contribute to data science projects.

### B&W Tek, LLC

Newark, DE

#### Instrument Development Engineer

2013 – 2017

Develop Android and Linux based Embedded Handheld Spectrometer Products (NanoRam, TacticID, LIBS) which aim for Pharmaceutical, Safety and Security applications that are key products for the firm contributing to > 30% total revenue.

- Design and implement spectral analysis and processing algorithm for the onboard data analysis engine
- Design and implement stray light correction algorithm
- Design and implement applications using Qt
- Set up Linux Environment and Android application architecture, and build development environment for Qt on Linux
- Customize Linux kernel to satisfy product hardware and functional requirements
- Develop test program for hardware communication drivers such as i2c, GPIO, RS232 for imaging sensors, lasers, network adapters and proximity sensors
- Coordinate with international software and hardware engineering team on Asana collaborative platform for collaborating and prioritizing development, issue tracking and feature maintenance

### Tencent

Hangzhou, China

#### Web Developer Intern

2012

- Web development

### Motorola Mobility

Libertyville, IL

#### Testing Engineer Intern

2011 – 2012

- Document results, gather failure logs, identify defects, file CRs, and coordinate issue tracking to closure with the global development team
- Analyze logs and resolve issues reported through JIRA
- Modify test cases, set up testing environment and analyze related requirements
- Familiar with ADB debugging tools, Fastboot, RSD Lite

## Skills and Tools

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- C++, Python, R, SQL, Matlab
- Tableau, D3.js
- Android, Linux command
- Signal Processing, Spectral Analysis Data Processing
- Optical Engineering

## Education

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MS University of California, Berkeley – Master of Information and Data Science

2017

*Featured Courses:*

Statistics for Data Science | Applied Machine Learning | Data Visualization | Natural Language Processing with Deep Learning | Time-Series | Experiments Design

<b>MS</b>	<b>Illinois Institute of Technology</b> – Master of Science in Electrical Engineering	2012
<b>BS</b>	<b>Zhejiang University, China</b> – Bachelor of Science in Optoelectronics and Optical Engineering	2010

## Projects

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<b>Imagion, Data Exploration and Visualization</b>		2017
<ul style="list-style-type: none"> <li>• Train a Convolutional Neural Network that provides instant ranked scores of an uploaded image to help Instagram users evaluate potential popularity, likes and click-through rates</li> <li>• Set up project infrastructure and guideline, building and hosting user interactive website interface and visualization on Google Cloud using Flask framework in Python which were well-received amongst peers</li> <li>• Assist in building, training, and validating the algorithm and model</li> <li>• Model was trained on a dataset of 12,000 Instagram images with adequate output accuracy</li> </ul>		
<b>Yelp Challenge, Data Engineering, Modeling and Visualization</b>		2016
<ul style="list-style-type: none"> <li>• Deliver a restaurant recommendation dashboard based on a person's preference</li> <li>• Implement ELT process on establish restaurant reviews</li> <li>• N-gram model is applied to the transformed data</li> <li>• Design Tableau dashboard for user interaction</li> </ul>		
<b>Roof Orientation and Shape Classification (Data Science Game 2016 on Kaggle), Feature Engineering</b>		2016
<ul style="list-style-type: none"> <li>• Apply various Machine Learning models to recognize, classify and predict the direction and orientation of roofs presented in images such as those from Google Maps</li> <li>• Implement feature engineering methods such as Image Edge Detection, trained data and validated model output</li> </ul>		

## Language

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- English
- Chinese (Native)