

# Zihua WU

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## Educational Background

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### University of Michigan

Sep 2015 - Dec 2016

- Master of Science in Quantitative Finance and Risk Management
- Core Courses: Machine Learning, Natural Language Processing, Numerical Analysis, Applied Statistics, Stochastic Finance
- GPA: 3.53/4

### Zhejiang University

Sep 2011 - Jul 2015

- Bachelor of Science in Computational Mathematics
- Core Courses: Data Structure, Database Management System, C# Programming, Mathematical Analysis, Computer Graphics
- GPA: 3.63/4

## Internship & Work Experience

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### Intern Algorithm Engineer, Shenzhen AXM Technology Co.,Ltd

Jun - Sep 2016

- Acquired aviation-related data from web scraping with Scrapy, BeautifulSoup and Requests library
- Cleaned and organized acquired data into MongoDB, building up corpus for Q&A system of Pepper robots serving Shenzhen Airport
- Realized synchronization of humanoid robots' choreography according to Contraction theory and quorum sensing, using Python and *Naoqi* platform

### Intern Software Developer, Zhejiang Math Association

Feb - Apr 2015

- Set up membership management and library management system using C#, including features like administration, login, verification code, adding and updating member portfolio, and mail system
- Maintained database of above systems in SQL (SQL Server), building up constraints between relations
- Designed the front-end and interaction of the systems with HTML and JavaScript

### Investment Assistant, Citibank

Jan - Mar 2014

- Analyzed sales data among different departments using Excel Pivot Tables
- Used Pandas, a Python data analysis library to process data and design visual charts for presentation to clients
- Helped investment manager prepare materials and slides (PowerPoint)

## Extracurricular Activities

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### Vice President, Students Association for Overseas Exchange

Sep 2012 - Jun 2013

- Established connections with relevant businesses in fields of education and overseas exchange
- Sought sponsorship for campus activities and design advertisement for our sponsors
- Efficiently coordinated different departments across the association in daily routine

### Grader (Machine Learning), EECS, University of Michigan

Sep 2016 – Present

- Check and grade assignments, quizzes and in-class exercises, paying close attention and returning to professor on time each week

## Professional Skills

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- **R:** 2.5 years of experience with Statistics, Data Visualization and Data Mining tools
- **Python:** Skilled at Numpy, Scipy, Pandas, BeautifulSoup, Scikit-learn, Seaborn
- **Statistics Models:** Hypothesis Testing, Regression, Analysis of Variance, Mixed Model, Multivariate Analysis, Categorical Data Analysis, Predictive Modeling, Time Series, Design of Experiment
- **Machine Learning:** Supervised Learning (Regression, Decision Tree, Neural Networks, KNN, SVM, Naïve Bayes Classifiers), Unsupervised Learning (Clustering, PCA, Matrix Factorization), etc.
- **Web Scraping:** Scrapy, Requests, BeautifulSoup, XML, Regular Expression
- **Database:** MongoDB, Oracle, SQL Server, MySQL, JDBC
- **Coding:** .Net, C#, C, Java, MATLAB, HTML and JavaScript
- **Finance-related:** Stochastic Processes, Risk Management, Excel