



Wesley Wei Qian

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Education

Brandeis University | Waltham, MA

Bachelor of Science in Computer Science and Neuroscience

SEP 2013-MAY 2017

Dean's List:

FALL 2013, SPRING 2014, FALL 2014, SPRING 2015, FALL 2015

GPA: **3.95 / 4.00**

Award: Phi Beta Kappa Junior Recipient

Experience

MACHINE LEARNING RESEARCH INTERN | BRANDEIS UNIVERSITY

MAY 2015-PRESENT

- ▶ Conduct interdisciplinary research in computer science, biology and linguistic using statistic machine learning and deep learning approach with Professor Pengyu Hong at Brandeis University
- ▶ Tackle the NP-complete graph matching problem with a graduated assignment implementation
- ▶ Optimize automatic graph feature extraction and apply the model in biology domain involving proteins and neurons
- ▶ Implement computational linguistic models using word vector, neural network and other statistical tools to match sentences in the same conversational context
- ▶ Implement the algorithms using MATLAB Machine Learning Toolbox, Parallel Computing Toolbox

UNDERGRADUATE TEACHING ASSISTANT | BRANDEIS UNIVERSITY

SEP 2014-PRESENT

- ▶ Gave sections for intro & advanced java, data structure & algorithm, computer program structure and interpreter
- ▶ Hold weekly office hours for individual student discussion and wrote JUnit test for code grading

GOOGLE CODEU PARTICIPANT | MOUNTAIN VIEW, CA

MAR 2015-AUG 2015

- ▶ Participated CodeU, an exclusive dev program for high potential students to strengthen their skills
- ▶ Completed Udacity's Developing Android Apps course, and worked with three other participants to create a contact transfer Android Application that transfers users' contact and social platform info with NFC or QR Code using Android Beam API, ZXing Project and Parse backend in two weeks
- ▶ Presented the application at Google Tech Corner and won the runner-up for Engineer's Choice

PHOTOGRAPHER | HARVARD SEED

NOV 2013-SEP 2014

- ▶ Member of Harvard SEED on Citizenship and Social Innovation
- ▶ Create photo-based magazine project; take and edit photos for events

RACIAL MINORITY SENATOR | BRANDEIS UNIVERSITY

SEP 2013-MAY 2014

- ▶ Elected to represent racial minority students (50% student body) in the Student Union
- ▶ Created videos showing differences in cultures and hold poetry slam in social justice
- ▶ Implemented sustainability initiatives in dining halls campus-wide.

Courses

- ▶ Intro/Advanced Java Programming in object oriented programming
- ▶ Data Structure and Algorithm Design
- ▶ Introduction to the Theory of Computation
- ▶ Computer Program Structure and Interpreter
- ▶ **Statistical Machine Learning**
- ▶ **Operating System**
- ▶ **Database Management Systems**
- ▶ **Distributed Systems**

Projects

KAGGLE: RESTAURANT REVENUE PREDICTION | BRANDEIS UNIVERSITY

APR 2015

- ▶ Predicted restaurant revenue for TFI, the company behind some of the world's most well-known brands including Burger King and compete with other data scientist on Kaggle
- ▶ Utilized linear regression, regression tree, fit ensemble, support vector machine package in MATLAB
- ▶ **Rank 38th (<2%) among 2257 teams from all over the world**
- ▶ Github project: <https://github.com/WesleyC/RestaurantRevenuePrediction>

JEEVES | BRANDEIS UNIVERSITY

JUL 2014-AUG 2014

- ▶ Created Jeeves, an Android voice-powered virtual assistant for everyday routines
- ▶ Focused on conversational dialogue and provided user a natural interaction with the app
- ▶ Crafted with JavaScript, HTML, CSS, news/weather/gmail API, Bootstrap, AngularJs and PhoneGap
- ▶ **Runner-Up of AVIOS Mobile Speech Application Contest 2015**
- ▶ Github project: <https://github.com/arikalfus/Jeeves>

DEMANDWARE FIELD PROJECT | BURLINGTON, MA

SEP 2015-DEC 2015

- ▶ Work with Demandware Inc., a software technology company providing a cloud-based e-commerce platform for retailers and brand manufactures, to define and narrow down problems in today's in-store shopping experience in the era of online shopping
- ▶ Research, propose and test solutions and features to enhance in-store shopping experience by bridging internet and physical store
- ▶ Develop two mobile application, Android and iOS, to do a proof of concepts on some emerging technologies like beacons (notification and triangulation location), Google Indoor Map, etc
- ▶ Write and pitch our project to the team with reports, presentations and website
- ▶ Github project: <https://github.com/BrandeisXDemandware>

CONTACT TRANSFER | MOUNTAIN VIEW, CA

JUL 2015-AUG 2015

- ▶ Created a contact transfer Android Application that transfers users' contact and social platform info in a quick manner using NFC or QR Code
- ▶ Worked with Android Beam API for NFC support, ZXing Project for QR code support and Parse backend in Android Studio
- ▶ Presented the application at Google Tech Corner and won the runner-up for Engineer's Choice
- ▶ Github project: <https://github.com/WesleyC/ContactTransfer>

AUTOMATIC SPATIAL PATTERN EXTRACTION | BRANDEIS UNIVERSITY

SEP 2015-PRESENT

- ▶ Apply a pattern recognition machine learning model and innovate a new way to match proteins in their tertiary(three dimension) structure instead of their primary(linear) structure
- ▶ Preprocess biology data, specifically protein crystal structure data from protein data bank
- ▶ Tune and customized a pattern extraction model with high throughput protein data using parallel computing tools and robust EM algorithm to handle the high diversity in protein sequence
- ▶ Train protein sequence with skip gram algorithm to generate vector representation for amino acids

FOR MORE

- ▶ <https://github.com/WesleyC>

Skills

Programming skills in Java, Python, MATLAB, Go, Scheme, C, JavaScript, HTML, CSS and **proficient with** Parse, Node.js, AngularJS, Bootstrap, MongoDB, PSQ. **Experience in** Distributed System (Paxos, Spanner etc), Android Development, Statistical Machine Learning, Deep Learning, Bioinformatic and Neuron Modeling, Speech Recognition Grammar(GRXML). **Native in** Mandarin and Cantonese. **Familiar with** Aperture, Photoshop and Lightroom. **Enjoy** photograph, biking and equestrian.