

# Xueguang (Luke) Lu

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## EDUCATION

**Northeastern University**, Boston, MA

*Sept. 2016-present*

*Candidate for a Master of Science in Computer Science, GPA: 3.89*

*Expected graduation: Dec. 2018*

Related Courses: Programming Design Paradigm, AI, Advanced Algorithm, NLP

**University of California, Irvine**, Irvine, CA

*Bachelor of Science in Informatics, concentrated on HCI, GPA: 3.67*

*Sept. 2012 - June 2016*

Related Courses: DB Management, UX, HCI, Data Visualization, IR, Discrete mathematics, Information theory

## TECHNICAL KNOWLEDGE

### Languages

Python, C++, Java, JS, Haskell

### Systems

macOS, Ubuntu, Windows

### Dev Ops

Git, Jenkins, GCP, AWS, Alexa

## INTERN EXPERIENCE

**PayPal Inc.** | Software Engineering Co-op (7 months) | San Jose, CA

*May. - Dec. 2017*

- Developed a general-purpose recommendation platform, optimized for scalability and accuracy (Flask, Hadoop, Spark, TensorFlow, GCP), observed 80% of traffic increase for related products; platform also utilized for internal reporting and insights.
- Collaborate with merchant team on developing a frontend modularization platform (Express, React, Redux); researched and resolved security vulnerabilities; designed and implemented a set of API schema to dramatically improve develop productivity across PayPal.
- PayPal Emoji Hackathon (1<sup>st</sup> place); 3 patents pending.

**Astronics Test Systems** | Software Engineering Intern & Scrum Master | Irvine, CA

*Nov. 2015 - June 2016*

- Implemented Windows Universal App for industrial sensor data collection; using Raspberry Pi, C#.
- Designed and developed a Data collecting/management/visualization pipeline on **Azure** (Transact SQL, IoT hub, Stream Analytics, Bootstrap, D3, etc.), solving long-lasting maintenance issues.
- Project public poster: [bit.ly/astronics-project](http://bit.ly/astronics-project)

**Apples and Oranges Studios** | Full Stack Web Development Freelancing | Irvine, CA

*June – Sept. 2016*

- Developed a Show-Venue Matching POC web app (**Django**, AngularJS and Bootstrap).
- Leveraged Machine Learned Decision Trees (**sklearn**) to implement Content-Based Recommendation.

**Google Inc.** | Research Assistant | Mountain View, CA

*June – Sept. 2015*

- Implemented and tested image processing algorithms including LBP, SIFT, FFT, CANNY, HOG, etc.
- Enhanced searching using combined feature similarity, indexed and retrieved using ISH.

## PROJECTS

**Personal Assistant** | Conversational Android App Voice-Assistance Module

[devpost.com/XueguangLu](http://devpost.com/XueguangLu)

- Team Leader, awarded “Best use of IBM Bluemix Platform” at Spartahack 2017.

**Machine Learning to Rank Top Universities** | Linear Regression + Ranking SVM

[git.io/universityrank](http://git.io/universityrank)

- Improved accuracy over original model (2<sup>nd</sup> place at KDD Cup 2016) by 11%.

**MGNC-CNN Entailment** | Exploiting multiple word embeddings simultaneously

[git.io/textentailment](http://git.io/textentailment)

- Achieved higher accuracy than using individual word embeddings or combined using multi-channel model.

**Brown Clustering** | Python Implementation of the famous brown clustering algorithm

[git.io/brown](http://git.io/brown)

- Research actualization, achieved 10% better runtime than other implementations.

**My Personal Portfolio Website** | Pure CSS and JS project

[xueganglu.net](http://xueganglu.net)