# 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: May 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	Systems	Dev Ops
Python, C++, Java, JS, Haskell	macOS, Ubuntu, Windows	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 (1st 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-lasted maintenance issues.
- Project public poster: 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

• 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

• 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

• 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

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

My Personal Portfolio Website | Pure CSS and JS project

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