

# Benjamin Xie

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## EDUCATION

### UNIV. OF WASHINGTON

#### PH.D. IN INFORMATION SCIENCE

Sep 2016- | Seattle, WA

Adv. Data Science Option

Code & Cognition Lab

Advisor: Andrew Ko. GPA: 3.9/4.0

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY

#### M.ENG. IN COMPUTER SCIENCE

June 2016 | Cambridge, MA

Conc. in Artificial Intelligence

Thesis: *Progression of Computational Thinking Skills Demonstrated by App Inventor Users*. Advisor: Hal Abelson

GPA: 4.7 / 5.0

#### S.B. IN COMPUTER SCIENCE

June 2015 | Cambridge, MA

Humanities conc. in Education

GPA: 4.5 / 5.0

## COURSEWORK

### UNIV OF WASHINGTON

Computer-Supported Collab. Learning

• Adv. Educational Measurements •

Value-Sensitive Design

### MIT

Machine Learning • Fundamentals of

Probability • Human Intelligence

Enterprise • User Interface Design •

Games and Simulations for Education

## SKILLS

### LANGUAGES

Javascript, Python, R, SQL, Java,

MATLAB, HTML, CSS, PHP, Scala

### LIBRARIES & FRAMEWORKS

Visualization: Pandas, d3.js, Bokeh.

Front-end: React, AngularJS, jQuery.

Back-end: NodeJS, Django, Rails.

Testing: Jasmine, Protractor

### SOFTWARE & SERVICES

Linux, Vim, Git, IPython, Eclipse,

Heroku, AWS, Wordpress

## LINKS

Twitter:// @benjxie

Github:// bxie

LinkedIn:// benjaminxie

Medium:// @benjxie

Google Scholar:// Benjamin Xie

## RESEARCH EXPERIENCE

### U.W. INFORMATION SCHOOL | R.A., GUEST FACULTY

Sep 2016 – Present | Code & Cognition Lab

Research in computing education in online environments. Interests in artificial intelligence in education, human-computer interaction. Current projects include 1) creating an adaptive formative assessment tool to inform CS learners of their competencies and identify misconceptions, 2) teaching program comprehension (reading code) before construction (writing code). Publication in ACM ICER.

### MIT CENTER FOR MOBILE LEARNING | R.A., MENTOR

Aug 2013 – Sep 2016 | MIT App Inventor

Analyzed data from >10k users to understand how people learn computational skills by creating apps with MIT App Inventor. Organized initiative with four institutions nationwide to improve understanding of user behavior. Mentored 8 students' research projects. Published papers on quantitative findings relating to usability, learning resources, learner behavior. (IEEE VL/HCC 2016, ACM SPLASH 2015)

## WORK EXPERIENCE

### NOVOED | ENGINEERING & DATA SCIENCE INTERN

June 2015 – Aug 2015 | San Francisco, CA

- Developed, fixed, tested, and deployed code in fast-paced agile startup environment with small team
- Wrote and tested algorithm to rank forum posts by activity, temporality
- Implemented and integrated automated end-to-end testing for social online learning environment

### APPNEXUS | INTERN, API TEAM

June 2014 – Aug 2014 | New York, NY

- Designed data analysis system to aggregate log data from multiple sources
- Validated findings and service in test and production environments and iteratively improved system

### EBAY, INC. | INTERN, MARKETPLACES TEAM

May 2013 – Aug 2013 | San Jose, CA

- Implemented data dashboard of multi-platform usage to develop a device-independent service layer for eBay global marketplaces

## AWARDS

- |         |  |
|---------|--|
| 2016-21 | National Science Foundation (NSF) Graduate Research Fellowship |
| 2015    | Outside Lands Hackathon (Outside Hacks) Winner                 |
| 2014-15 | MIT EECS-Google Research and Innovation Scholar                |
| 2013-16 | USTFCCCA All-Academic Honoree in Cross Country, Track          |
| 2006    | Eagle Scout, Boy Scouts of America                             |

## AFFILIATIONS

- |          |                         |   |
|----------|-------------------------|---|
| 2017-    | Head of Edu. Co-Op      | Seattle Data for Good                       |
| 2017     | Instructor              | UW INFO 370 (Intro to Data Science)         |
| 2016-    | Educational Counselor   | MIT Educational Council                     |
| 2016     | Mentor                  | Google Summer of Code, MIT Media Lab        |
| 2014-15  | Teaching Assistant      | Prospect Hill Academy                       |
| 2014, 15 | Program Committee       | MIT EECS Undergraduate Conference (EECScon) |
| 2011-16  | Coach, Captain, Athlete | MIT Cross Country, MIT Track & Field        |