# **Justin Lubin**

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Curriculum Vitae, September 2019

### **Research Interests**

My goal is twofold: to develop *elegant theories* and to make them usable by *humans*. To that end, I am interested in *programming language theory* and draw great inspiration from the study of *human-computer interaction*. In particular, I am interested in designing and leveraging type systems and language constructs to make programming languages, environments, and tools more accessible, intuitive, and powerful.

## **Education**

#### University of Chicago, Chicago, IL

2016–2020 (expected)

B.S., Computer Science, Mathematics (Minor in Music).

GPA: 3.96/4.00.

## **Research Experience**

Research Assistant 2016–present

 ${\it University of Chicago, Chicago, IL.}$ 

Advisor: Ravi Chugh.

Research Assistant 2018

Carnegie Mellon University, Pittsburgh, PA.

Advisors: Jonathan Aldrich (CMU), Alex Potanin (Victoria University of Wellington).

#### **Publications**

#### Sketch-n-Sketch: Output-Directed Programming for SVG

**UIST 2019** 

Brian Hempel, Justin Lubin, and Ravi Chugh.

In Proceedings of the ACM Symposium on User Interface Software and Technology (UIST).

New Orleans, LA, October 2019.

#### Deuce: A Lightweight User Interface for Structured Editing

ICSE 2018

Brian Hempel, Justin Lubin, Grace Lu, and Ravi Chugh.

In Proceedings of the International Conference on Software Engineering (ICSE).

Gothenburg, Sweden, May 2018.

# **Workshop Papers**

Type-Directed Program Transformations for the Working Functional Programmer

PLATEAU 2019

Justin Lubin and Ravi Chugh.

For PLATEAU 2019.

New Orleans, LA, October 2019.

## **Presentations**

Presentations	
Approximating Polymorphic Effects with Capabilities SPLASH Student Research Competition. Boston, MA, November 2018.	2018
Direct Manipulation Programming in Sketch-n-Sketch International Conference on Functional Programming (ICFP) Tutorials. St. Louis, MO, September 2018. Presented with Ravi Chugh, Nick Collins, Brian Hempel, and Mikaël Mayer.	2018
Posters	
Approximating Polymorphic Effects with Capabilities Midwest Programming Languages Summit 2018. Madison, WI, October 2018.	2018
Honors	
Student Marshal University of Chicago, Chicago, IL. Appointed by the president of the university.	2019
Phi Beta Kappa Honor Society University of Chicago, Chicago, IL. Inducted in third year of undergraduate studies.	2019
First Place (Undergraduate Category) SPLASH Student Research Competition, Boston, MA. Awarded for Approximating Polymorphic Effects with Capabilities.	2018
Dean's List University of Chicago, Chicago, IL.	2016–2019
Community and Professional Service	
Volunteer Instructor compileHer Tech Capstone. Chicago, IL, April 2019. Computer science educational outreach for middle school girls in Chicago.	2019
Student Volunteer  Elm in the Spring. Chicago, IL, April 2019.	2019
Student Volunteer International Conference on Functional Programming (ICFP). St. Louis, MO, September 2018.	2018
Other Activities	
Oregon Programming Languages Summer School Topic: Foundations of Probabilistic Programming and Security.	2019