

Justin Lubin

✉ justinlubin@uchicago.edu 🌐 jlubin.net 📷 [justinlubin](https://www.instagram.com/justinlubin)

Curriculum Vitae, December 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 *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
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).

Other Experience

Grader 2018
University of Chicago, Chicago, IL
CMSC 16100: Honors Introduction to Programming I

Peer-Reviewed 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.

Publications in Submission

Program Sketching with Live Bidirectional Evaluation 2019
Justin Lubin, Nick Collins, Cyrus Omar, and Ravi Chugh.

Peer-Reviewed 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

Program Synthesis with Live Bidirectional Evaluation 2019
Midwest Programming Languages Summit.
West Lafayette, IN, September 2019.

Approximating Polymorphic Effects with Capabilities 2018
SPLASH Student Research Competition.
Boston, MA, November 2018.

Direct Manipulation Programming in Sketch-n-Sketch 2018
International Conference on Functional Programming (ICFP) Tutorials.
St. Louis, MO, September 2018.
Presented with Ravi Chugh, Nick Collins, Brian Hempel, and Mikaël Mayer.

Posters

Program Synthesis with Live Bidirectional Evaluation 2019
UCISTEM Undergraduate Research Symposium.
Chicago, IL, September 2019.

Approximating Polymorphic Effects with Capabilities 2018
Midwest Programming Languages Summit.
Madison, WI, October 2018.

Honors

Student Marshal 2019
University of Chicago, Chicago, IL.
Appointed by the president of the university.

Phi Beta Kappa Honor Society 2019
University of Chicago, Chicago, IL.
Inducted in third year of undergraduate studies.

First Place (Undergraduate Category) 2018
SPLASH Student Research Competition, Boston, MA.
Awarded for *Approximating Polymorphic Effects with Capabilities*.

Dean's List 2016–2019
University of Chicago, Chicago, IL.

Community and Professional Service

Volunteer Teacher <i>UChicago Tech Interview Workshop.</i> Chicago, IL, Autumn 2019. Collaborative peer-led technical interview workshops.	2019
Volunteer Teacher (Piano) <i>South Side Free Music Program.</i> Chicago, IL, Autumn 2019. Student-run organization providing free weekly music lessons to children on the south side of Chicago.	2019
Volunteer Teacher <i>Music Sociality.</i> Chicago, IL, Autumn 2019. Enrichment program building social connections through music among children with autism and related sensory processing disorders.	2019
Volunteer Teacher <i>compileHer Tech Capstone.</i> Chicago, IL, April 2019. Computer science educational outreach for middle school girls in Chicago.	2019
Student Volunteer <i>Elm in the Spring Conference.</i> Chicago, IL, April 2019.	2019
Student Volunteer <i>International Conference on Functional Programming (ICFP).</i> St. Louis, MO, September 2018.	2018

Other Activities

Oregon Programming Languages Summer School Topic: <i>Foundations of Probabilistic Programming and Security.</i>	2019
---------------------------------------------------------------------------------------------------------------------------	------