Max S. New

CURRICULUM VITAE

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RESEARCH

Language interoperability; gradual typing; language semantics and design

INTERESTS CURRENT

♦ Northeastern University (Boston, MA, USA)

Aug. 2014 – Present

POSITION PhD Candidate

EDUCATION

Northeastern University, Boston, MA

2012 - 2018

PhD in Computer Science, Expected April, 2020

Thesis: A Semantic Foundation for Gradual Typing

Advisor: Amal Ahmed

Committee: Matthias Felleisen, Ronald Garcia, Daniel R. Licata, Peter Thiemann,

Mitchell Wand

Northwestern University, Evanston, IL

2009 - 2014

MS in Computer Science, June 2014

BA in Computer Science and Mathematics, June 2013

SERVICE

Program Co-chair

April 2020

Eighth Workshop on Mathematically Structured Functional Programming (MSFP

2020)

Panelist

January 2019

Programming Languages Mentoring Workshop at POPL 2019

Panel: Grad School and Beyond

New England Programming Languages and Systems Symposium

Co-chair October 2016

Selection Committee May 2016, June 2017, October 2016, August 2018

Journal Reviewer for: ACM Transactions on Programming Languages and Systems (TOPLAS), Journal of Functional Programming (JFP), Logical Methods in Computer

Science (LMCS),)

Conference Reviewer for ACM SIGPLAN Symposium on Principles of Programming Languages (POPL), ACMâĂŞIEEE Symposium on Logic in Computer Science (LICS), ACM SIGPLAN International Conference on Functional Programming (ICFP), International Conference on Foundations of Software Science

and Computation Structures (FoSSaCS)

Awards

POPL Student Research Competition, Third Place

2017

Northeastern University Fellowship

2014 - Present

Publications (Journal)

How to evaluate the performance of gradual type systems

JFP Vol 29, 2019

Ben Greenman, Asumu Takikawa, Max S. New, Daniel Feltey, Robert Bruce Findler,

Jan Vitek, Matthias Felleisen

Journal of Functional Programming

Fair Enumeration Combinators

JFP Vol 27, 2017

Max S. New, Burke Fetscher, Robert Bruce Findler, Jay McCarthy

Journal of Functional Programming

Publications (Conferences)	Graduality and Parametricity: Together Again for the First Time Max S. New, Dustin Jamner, Amal Ahmed	POPL 2020
	ACM SIGPLAN Symposium on Principles of Programming Languages Gradual Type Theory Max S. New, Daniel R. Licata, Amal Ahmed ACM SIGPLAN Symposium on Principles of Programming Languages	POPL 2019
	Graduality from Embedding-projection Pairs Max S. New, Amal Ahmed ACM SIGPLAN International Conference on Functional Programming	ICFP 2018
	Call-by-name Gradual Type Theory Max S. New, Daniel R. Licata International Conference on Formal Structures for Computation and Deduction	FSCD 2018
	FabULous Interoperability for ML and a Linear Language Gabriel Scherer, Max S. New, Nick Rioux and Amal Ahmed International Conference on Foundations of Software Science and Computation Structures	FoSSaCS 2018
	Fully Abstract Compilation via Universal Embedding Max S. New, William J. Bowman, and Amal Ahmed ACM SIGPLAN International Conference on Functional Programming	ICFP 2017
	Oh Lord, Please Don't Let Contracts be Misunderstood (Functional Pearl) Christos Dimoulas, Max S. New, Robert Bruce Findler, Matthias Felleisen ACM SIGPLAN International Conference on Functional Programming	ICFP 2016
	A Coq Library For Internal Verification of Running-Times Jay McCarthy, Burke Fetscher, Max New, Daniel Feltey, Robert Bruce Findler International Symposium on Functional and Logic Programming	FLOPS 2016
	Is Sound Gradual Typing Dead? Asumu Takikawa, Daniel Feltey, Ben Greenman, Max S. New, Jan Vitek, Matthias Felleisen ACM SIGPLAN Symposium on Principles of Programming Languages	POPL 2016
Teaching Experience	Northeastern University ⋄ Teaching assistant, Intensive Principles of Programming Languages PhD course on programming languages	Spring 2016
	 Teaching Assistant, Fundamentals of Computer Science I Undergraduate introductory programming course 	Fall 2015
	Northwestern University ⋄ Teaching Assistant, Compiler Construction Upper-level undergraduate course on compilers	Spring 2014
	 Teaching Assitant, Programming Languages Undergraduate course on programming languages 	Winter 2014

Talks	Type Theoretic Gradual Typing UPenn PL Club	June 2019
	A Type Theoretic Approach to Gradual Typing CMU Principles of Programming Seminar	October 2018
	Semantic Foundations for Gradual Typing Invited Talk, MFPS 2018	June 2018
	Call-by-name Gradual Type Theory Northeastern PL Seminar	April 2018
	Retractions and Blame Northeastern PL Seminar	December 2016
	Abstract Interpretation Northeastern PL Seminar, Jr	February 2016
	The Expression Problem & Inductive Data Types Northeastern PL Seminar, Jr	July 2015
	System F and Parametricity Northeastern PL Seminar, Jr	March 2015
	Intro to Categories Northeastern PL Seminar, Jr	November 2014
	Every Program in Your Redex Model, in Order RacketCon 2013	September 2013