Hyeyoung Shin

Resumé

Contact Information

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Interests

Programming languages, type theory, and functional programming

Education

Northeastern University. MS in Computer Science — 2017–2019
Advisor: Professor Amal Ahmed

University of Hawai'i, Mānoa. Course work in mathematics and computer science — 2016–2017
Graduate: logic, recursion theory; undergraduate: concurrent programming, topology

Iowa State University. Course work in mathematics and computer science — 2014–2016
Graduate: Programming languages, formal methods, computability;
Undergraduate: OOP, data structures, algorithms, abstract algebra, intro to proofs, calculus

Kyeongpook National University. Bachelor of Arts, English Language and Literature 2004–2009

Additional Training

Midlands Graduate School in Foundations of Computing Science — University of Birmingham
Topics: lambda calculus, category theory, univalent type theory in Agda — April 2019

The Racket School of Semantics and Languages — University of Utah
Topics: semantics and language design — July 2017

Oregon Programming Languages Summer School — University of Oregon
Topics: dependent, gradual, and substructural type systems — June 2017

Midlands Graduate School in Foundations of Computing Science — University of Birmingham
Topics: type theory, denotational semantics, category theory — April 2016

Oregon Programming Languages Summer School — University of Oregon
Topics: type theory, logic, semantics, verification — June 2016

Functional Programming Principles in Scala — École Polytechnique Fédérale de Lausanne
Topics: 6-week online course with verified certificate — Grade Achieved: 94%

Professional Experience

Czech Technical University. Researcher on the Signatr Project — 2019–2021
Supervisor: Professor Jan Vitek and Christoph Kirsch

Czech Technical University. TA for OOP design course by Filip Krikava — Fall 2020

Iowa State University. TA for data Structures course by Yan-Bin Jia — Fall 2015

Gyeongsan Girls' High School. English Teacher — 2009–2013

Research

The Signatr Project: developing a system for inferring function types in R programs
with Jan Vitek, Christoph Kirsch, Filip Krikava, and Yuan Cao

A fully abstract compilation from a total to a partial language. H. Shin (submitted to POPL)

Programming Experience

R. Build tracer and database for function arguments and return values for a research project

Racket. Implement interpreter generator parametrized by representations of env and closure

SML. Implement compiler that compiles Tiger language to MIPS assembly.

Other. Scala, Java, Git, LaTeX

Awards

Northeastern University Ph.D. Graduate Fellowship — Boston, 2017–2018

Scholarships to attend Oregon Programming Languages Summer Schools — Eugene, 2016, 2017

Scholarship to attend POPL Programming Languages Mentoring Workshop — St. Petersburg, 2016

Scholarship to attend ICFP Programming Languages Mentoring Workshop — Vancouver, 2015

Leadership

Organizer of *PL Jr. Study & Research Group*, Northeastern University — 2018-2019