NOAM ZILBERSTEIN

G23 Gates Hall ⋄ 107 Hoy Rd, Ithaca, NY 14853

https://cs.cornell.edu/~noamz ⋄ noamz@cs.cornell.edu

EDUCATION

Cornell University   *August 2021 - present*
Doctor of Philosophy   Overall GPA: 4.0
Computer Science

University of Pennsylvania   *August 2011 - May 2015*
Bachelor of Science in Engineering, *summa cum laude*   Overall GPA: 3.93
Computer and Information Science

HONORS AND AWARDS

Computer Science Academic Award   *May 2015*
University of Pennsylvania

Computer and Information Science Senior Design Third Prize   *May 2015*
University of Pennsylvania

PUBLICATIONS

[1] Quentin Carbonneaux, **Noam Zilberstein**, Christoph Klee, Peter O'Hearn, Francesco Zappa Nardelli. Applying Formal Verification to Microkernel IPC at Meta *In Proceedings of the 11th ACM SIGPLAN International Conference on Certified Programs and Proofs (CPP '22), January, 2022.* https://dl.acm.org/doi/10.1145/3497775.3503681

[2] **Noam Zilberstein**. Eliminating Bugs with Dependent Haskell. *In Proceedings of the 13th ACM SIGPLAN International Haskell Symposium (Haskell '20), August 2020.* https://doi.org/10.1145/3406088.3409020

TALKS

[1] Correctness (and Incorrectness) of Randomized Programs. *Cornell PL Discussion Group, March 2022*

[2] Applying Formal Verification to Microkernel IPC. *Certified Programs and Proofs, January 2022.*

[3] Applying Formal Verification to Microkernel IPC. *Facebook Testing and Verification Symposium, December 2021.*

[4] Applying Formal Verification to Microkernel IPC. *Cornell PL Discussion Group, October 2021.*

[5] Eliminating Bugs with Dependently Typed Haskell. *YOW! Lambda Jam, May 2021.*

[6] Eliminating Bugs with Dependently Typed Haskell. *Haskell Symposium, August 2020.*

WORK EXPERIENCE

Graduate Researcher   *September 2021 - present*
Cornell University, Ithaca, NY

Staff Software Engineer   *May 2020 - September 2021*
Facebook Programming Languages and Runtimes, Menlo Park, CA

Software Engineer/Senior Engineer/Staff Engineer   *June 2016 - September 2021*
Facebook Integrity Infrastructure, Menlo Park, CA

Software Engineer   *July 2015 - June 2016*
Facebook, London, UK

Software Engineering Intern   *May 2014 - August 2014*
Facebook

TEACHING

Guest Lecturer   *January 2022 - present*
Cornell University

- **Simply Typed Lambda Calculus and Type Soundness**, CS 6110 (Advanced Programming Languages), March 2022

Teaching Assistant   *August 2021 - present*
Cornell University

- **CS 6110: Advanced Programming Languages**, Spring 2022

- **CS 4110: Programming Languages and Logics**, Fall 2021

Course Instructor, CIS 194: Introduction to Haskell   *January 2015 - May 2015*
University of Pennsylvania
https://www.seas.upenn.edu/~cis194/spring15/

Teaching Assistant   *August 2012 - May 2015*
University of Pennsylvania

- **CIS 320: Algorithms**, Spring 2015

- **CIS 121: Programming Languages and Techniques II: Algorithms and Data Structures**, Fall 2014

- **CIS 371: Computer Organization and Design**, Spring 2014

- **CIS 261: Discrete Probability, Stochastic Processes, and Statistical Inference**, Fall 2013

- **CIS 120: Programming Languages and Techniques I**, Fall 2012, Spring 2013

SERVICE

- **Student Volunteer Co-Chair**, *Federated Logic Conference* (FLoC '22)

- **Subreviewer**, *International Conference on Concurrency Theory*, (CONCUR'22)

- **Subreviewer**, *International Conference on Computer Aided Verification* (CAV'22)

- **Organizer**, *Cornell Great Works in PL Reading Group*, Spring 2022

- **Reviewer**, *Cornell Graduate Pre-application Feedback Program*, Fall 2021

- **Student Volunteer**, *55th Annual Symposium on Foundations of Computer Science* (FOCS'14)

OPEN SOURCE PROJECTS

- **The Hack Programming Language**, A typechecker and compiler for Hack, Facebook's language for server side programming
  https://github.com/facebook/hhvm

- **Thrift for Haskell**, A compiler and toolchain for automatic data serialization and remote procedure calls. Built using dependent types for added correctness guarantees.
  https://github.com/facebookincubator/hsthrift

- **Haxl**, A Haskell library for automatic, concurrent data fetching
  https://github.com/facebook/Haxl