Ian H. Dardik, M.S.

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Education

University of Connecticut Storrs, CT — August 2010 - May 2014
School of Engineering, B.S. *Computer Science* — Cum GPA: 3.72/4.00
School of Liberal Arts and Sciences, B.S. *Mathematics* — Cum GPA: 3.72/4.00

Northeastern University Boston, MA — September 2020 - May 2022
M.S. *Computer Science* — Cum GPA: 4.00/4.00

Carnegie Mellon University Pittsburgh, PA — August 2022 - Present
Software Engineering Ph.D. Program

Professional Experience

Factset Research Systems, Manager, Senior Software Engineer — July 2014 - February 2020

- Key technologies: C++, Valgrind, Linux.
- Managed six total employees during my FactSet career.
- Responsible for Monte Carlo simulations, Multi-Asset Class risk, and factor-based risk models.
- Boston Engineering Internship Co-coordinator. Conducted technical interviews and co-managed the internship program.
- Voluntarily resigned in Feburary 2020 to enter academia.

Northeastern University, Tripakis Lab, Student Research Assistant — January 2021 - May 2022

- Key technologies: TLA+, TLA+ Proof System (TLAPS), Ivy
- Utilized TLA+/TLAPS to verify the *MongoRaftReconfig* distributed consensus protocol.
- Researched inductive invariant synthesis techniques for TLA+.

Teaching Experience

MentorWorks Education Capital Educational Lecturer
Brandeis University, Mathematical Society. — Fall 2017
The Cantor Set and Applications to Topology
Middlesex Community College, Business and Economics Club. — Fall 2017
A Simple AI Algorithm for a Tough Business Problem.

Northeastern University
CS2800: Logic And Computation, *Teaching Assistant* (approx. 130 students) — Fall 2021
CS3520: Programming In C++, *Teaching Assistant* (approx. 110 students) — Fall 2020, Spring 2021

Awards

Deans List, University of Connecticut School of Liberal Arts and Sciences & Engineering — Fall 2011 - Spring 2014
Upsilon Pi Epsilon (National Honor Society for Computer Science) — December 2012
Pi Mu Epsilon (National Honor Society for Mathematics) — April 2014
Khoury Research Apprenticeship Award — Spring 2021, Fall 2021

Publications

[1] William Schultz, Siyuan Zhou, **Ian Dardik**, and Stavros Tripakis. Design and analysis of a logless dynamic reconfiguration protocol. OPODIS 2021.

[2] William Schultz, **Ian Dardik**, and Stavros Tripakis. Formal verification of a distributed dynamic reconfiguration protocol. CPP 2022.

[3] William Schultz, **Ian Dardik**, and Stavros Tripakis. Plain and Simple Inductive Invariant Inference for Distributed Protocols in TLA+. FMCAD 2022.