Ian H. Dardik, B.S.

dardik.i@northeastern.edu • 203-815-3813 • https://iandardik.github.io

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 - December 2021
M.S. *Computer Science* — Cum GPA: 4.00/4.00

Northeastern University Boston, MA — Spring 2022
College of Professional Studies, Non-Degree 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.
- Managed team responsibilities including project allocation and approval of code submissions.
- Collaborated with stakeholders to define project scope and timelines for key clients.
- Introduced an iterator based library to the Risk Analytics code base, yielding a 10% program speedup to our core covariance matrix code path.
- Created a domain specific language for defining risk models, reducing implementation time from 2-3 months to one day.
- 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, Research Assistant — Summer 2021, Spring 2022

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

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, **Ian Dardik**, and Stavros Tripakis. Formal verification of a distributed dynamic reconfiguration protocol. arXiv:2109.11987 [cs.DC], 2021. **Accepted for publication to CPP 2022.**

[2] William Schultz, Siyuan Zhou, **Ian Dardik**, and Stavros Tripakis. Design and analysis of a logless dynamic reconfiguration protocol. arXiv:2109.11987 [cs.DC], 2021. **Accepted for publication to OPODIS 2021.**