Jeffrey M. Helt

Computer Science Department
Princeton University
35 Olden Street, Princeton, NJ 08540

Education

PRINCETON UNIVERSITY — Princeton, NJ
Ph.D. in Computer Science. Expected 2023.
M.A. in Computer Science, 2020.
Adviser: Wyatt Lloyd

CARNEGIE MELLON UNIVERSITY — Pittsburgh, PA
M.S. in Computer Science, 2018.
Advisers: Vyas Sekar & Srini Seshan

AMHERST COLLEGE — Amherst, MA
B.A. in Computer Science & Economics, 2013.

Research Interests

Distributed systems, databases, computer networks.

Refereed Publications

[1] **Jeffrey Helt**, Guoyao Feng, Vyas Sekar, Srini Seshan. Sandpaper: Mitigating Performance Interference in CDN Edge Proxies. In *Proc. 4th ACM/IEEE Symposium on Edge Computing*. November 2019.

[2] Soo-Jin Moon, **Jeffrey Helt**, Yifei Yuan, Yves Bieri, Sujata Banerjee, Vyas Sekar, Wenfei Wu, Mihalis Yannakakis, Ying Zhang. Alembic: Automated Model Inference for Stateful Network Functions. In *Proc. 16th USENIX NSDI*. February 2019.

Teaching Experience

Fall 2020 — **Teaching Assistant** — COS-316: Principles of Computer System Design, Princeton University
Undergraduate course surveying topics in the design, implementation, and evaluation of computer systems. About 60 students.
Taught weekly recitation, held office hours, and helped improve programming assignments.

Fall 2019 — **Teaching Assistant** — COS-418: Distributed Systems, Princeton University
Advanced undergraduate and master's course on the fundamentals of distributed systems. About 100 students.
Taught weekly recitation, held office hours, and graded exams.

Spring 2017 — **Teaching Assistant** — 15-386: Neural Computation, Carnegie Mellon University
Advanced undergraduate and master's course on the computational mechanisms underlying intelligent behavior. About 40 students.
Graded and held weekly office hours.

2015 – 2016 — **Volunteer Teacher** — Advanced Computer Science, Code Nation
High-school course on advanced web development. About 25 students.
Worked with 2 other volunteers to teach classes twice weekly.

2014 – 2015 — **Volunteer Teacher** — Computer Science Foundations, Code Nation
High-school course on the fundamentals of computer science and web application development. About 30 students.
Worked with 2 other volunteers to teach classes twice weekly.

Fall 2012 **Teaching Assistant** COSC-161: Computer Systems I, Amherst College
Introductory undergraduate course on the fundamentals of hardware and software systems. About 30 students.
Assisted students during weekly lab sessions.

Fall 2012, Spring 2011, Fall 2010 **Teaching Assistant** COSC-111: Computer Science I, Amherst College
Introductory undergraduate course on the fundamentals of computer science and Java programming. About 120 students.
Assisted students during weekly lab sessions.

Professional Experience

2014 – 2016 **Software Engineer**, Squarespace.

2013 – 2014 **FICC Technology Analyst**, Goldman Sachs.

Service

2018 Carnegie Mellon University M.S. in Computer Science Admissions Committee.

2017 Carnegie Mellon University M.S. in Computer Science Admissions Committee.

Honors & Awards

2020 Computer Science Graduate Student Teaching Assistant Award.

2018 NDSEG Fellowship Alternate.

2018 Dr. Ilian L. Mihov '96 Graduate Fellowship.

2017 Siebel Scholar, Class of 2018.

2017 Amherst Memorial Fellowship.

2016 John Woodruff Simpson Fellowship.

2010 – 2013 NESCAC All-Academic.

Graduate Coursework

Princeton University

Spring 2020 Security & Privacy (Instructor: Prateek Mittal).

Spring 2019 Advanced Computer Systems (Instructor: Michael J. Freedman).

Spring 2019 Theoretical Machine Learning (Instructor: Rob Schapire).

Fall 2018 Automated Reasoning about Software (Instructor: Zak Kincaid).

Fall 2018 Advanced Computer Networks (Instructor: Jen Rexford).

Carnegie Mellon University

Spring 2018 Graduate Computer Networks (Instructor: Srinivasan Seshan).

Spring 2018 Computability and Learnability (Instructor: Jeremy Avigad).

Fall 2017 Advanced Operating Systems & Distributed Systems (Instructor: David Andersen).

Spring 2017 Introduction to Machine Learning (Instructors: Aarti Singh & Pradeep Ravikumar).

Spring 2017 Graduate Computer Vision (Instructor: Deva Ramanan).

Fall 2016 Probability & Mathematical Statistics (Instructor: Sivaraman Balakrishnan).