

**Caleb Stanford**  
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## Education

- ▶ **University of Pennsylvania**  
PhD student, computer science  
Fall 2016 – present  
Advisor: Rajeev Alur.
- ▶ **Brown University**  
ScB, mathematics and computer science  
Fall 2013 – Spring 2016
- ▶ **Brigham Young University**  
Fall 2012 – Spring 2013

## Papers and Publications

- ▶ **Data transducers for streamable regular functions**, R. Alur, K. Mamouras, and C. Stanford. In preparation.
- ▶ **Data-trace types for distributed stream processing systems**, K. Mamouras, C. Stanford, R. Alur, Z. Ives, and V. Tannen. Submitted to PLDI 2018.
- ▶ **Interfaces for stream processing systems**, R. Alur, K. Mamouras, C. Stanford, and V. Tannen. Edward A. Lee Festschrift Symposium, *Principles of Modeling*, October 2017.
- ▶ **Automata-based stream processing**, R. Alur, K. Mamouras, and C. Stanford. ICALP, July 2017.
- ▶ Outstanding presentation award for “Context-directed reversals of signed permutations,” H. Li, J. Ramsey, M. Scheepers, H. Schilling, and C. Stanford. Joint Math Meetings (JMM), January 2016. Travel grant from JMM awarded.

## Educational Experience

- ▶ **Marktoberdorf Summer School** — logical methods for safety and security of software systems. August 2–11, 2017. Accepted with travel grant awarded.
- ▶ **Lipa Summer School** — topics connected to logic in computer science. July 3–6, 2017, University of Warsaw.
- ▶ **NASSLLI** — North American Summer School on Logic, Language, and Information. July 9–16, 2016, Rutgers University. Scholarship awarded.

## Graduate Coursework

- ▶ CIS 682 Friendly Logics / Finite Model Theory (Penn, Fall 2017)
- ▶ CIS 520 Machine Learning (Penn, Fall 2017)
- ▶ Math 571 Topics in Logic (Penn, Spring 2017)
- ▶ ESE 676 Coding Theory (Penn, Spring 2017)
- ▶ CIS 673 Computer-Aided Verification (Penn, Fall 2016)
- ▶ CIS 500 Software Foundations (Penn, Fall 2016)
- ▶ CIS 502 Algorithms (Penn, Fall 2016)

## Achievements

- ▶ Co-founder of the **Utah Math Olympiad**. The fifth annual contest was held in March 2017.
- ▶ **Putnam math exam:**

Year	Score	National Rank
2012	30	319th place
2013	40	136th place
2014	40	150th place
2015	30	163.5th place
- ▶ **Math GRE:** Score 900; 97th percentile.
- ▶ **ACM ICPC:** International Collegiate Programming Contest. Qualified for the Northeast North America regional round, fall 2014 and fall 2015. 3rd place at qualifier round and 5th place at regionals in 2015, as a team of 3.

## Teaching

- ▶ **Graduate TA** for CIS 511, Theory of Computation (Spring 2018)
- ▶ **Graduate TA** for CIS 500, Software Foundations (Fall 2017)
- ▶ **L<sup>A</sup>T<sub>E</sub>X workshop teacher** for the Brown Science Center (Spring 2014 – Spring 2016)
- ▶ **Undergraduate TA** for CS 51 Models of Computation (Fall 2015)
- ▶ **Undergraduate TA** for CS 22 Discrete Structures and Probability (Spring 2016)
- ▶ **Math Resource Center Tutor** at Brown (Fall 2014 – Fall 2015)
- ▶ **Student Teacher** for the BYU Math Circle (Fall 2012 – Spring 2013)

## External Links

- ▶ My website: <http://cis.upenn.edu/~castan>
- ▶ Utah Math Olympiad: <http://utahmath.org>

## Undergraduate Coursework

### Computer Science courses:

- ▶ CS 195Y Logic for Systems (Brown, Spring 2016)
- ▶ CS 195H Computational Topology (Brown, Spring 2015)
- ▶ CS 51 Models of Computation (Brown, Fall 2014)
- ▶ CS 146 Computational Linguistics (Brown, Spring 2014)
- ▶ CS 141 Artificial Intelligence (Brown, Spring 2014)
- ▶ CS 33 Introduction to Systems (Brown, Fall 2013)
- ▶ CS 235 Data Structures (BYU, Spring 2013)
- ▶ CS 142 Introduction to Programing (BYU, Fall 2012)

### Math courses:

- ▶ Math 123 Graph Theory (Brown, Spring 2016)
- ▶ Math 141 Topology (Brown, Fall 2015)
- ▶ Applied Math 174 Recent Applications of Probability and Statistics (Brown, Spring 2015)
- ▶ Math 251 Graduate Algebra (Brown, Fall 2014)
- ▶ Math 222 Graduate Functional Analysis (Brown, Spring 2014)
- ▶ Math 221 Graduate Real Analysis (Brown, Fall 2013)
- ▶ Math 352 Complex Analysis (BYU, Spring 2013)
- ▶ Math 372 Abstract Algebra 2 — Galois Theory (BYU, Spring 2013)
- ▶ Math 371 Abstract Algebra 1 — Groups and Rings (BYU, Fall 2012)
- ▶ Math 342 Real Analysis 2 (BYU, Spring 2013)
- ▶ Math 341 Real Analysis 1 (BYU, Fall 2012)

### Other relevant courses:

- ▶ Phil 188 Advanced Deductive Logic (Spring 2016)
- ▶ GISP 002 Model Theory (Spring 2015)  
A successful group independent study class on Model Theory, which I initiated. 8 other students participated.
- ▶ Phil 54 Logic (Fall 2014)