

Calvin Beideman  
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505 S Elm St.  
Champaign IL, 61820

- Education: **University of Illinois at Urbana Champaign**, Expected 05/2023  
PhD in Computer Science advised by Karthekeyan Chandrasekaran  
Courses: Algorithmic Game Theory, Combinatorics, Complexity Theory,  
Data Mining, Structure of Graphs, Algorithms for Big Data,  
Randomized Algorithms
- Carnegie Mellon University**, 05/2018  
B.S. in Computer Science, & Discrete Math and Logic (Double Major)  
Dean's List—F14, S15, F15, S16, S17, S18
- Skills: Python, C#, Java, C, SML, OCaml, LaTeX, Windows
- Research: Broadly interested in CS Theory, particularly algorithm design and combinatorial optimization  
Research experience in combinatorial optimization, approximation algorithms, hardness of  
approximation, combinatorial game theory, communication complexity
- Publications: Multicriteria Cuts and Size-Constrained k-cuts in Hypergraphs (RANDOM 2020)  
Deterministic enumeration of all minimum k-cut-sets in hypergraphs for fixed k (SODA 2022)  
Faster Connectivity in Low-rank Hypergraphs via Expander Decomposition (IPCO 2022)
- Employment: **Dropbox**, San Francisco, CA  
Software Engineering Intern  
May 2017 – August 2017
- Improve the reliability and speed of the Webhooks system for notifying 3<sup>rd</sup> party applications about changes in their users' Dropbox folders.
  - Improve data collection and logging for Webhooks so that developers can more quickly identify and fix issues that arise.
- ChemImage Corporation**, Pittsburgh PA  
Software Intern Summer 2011-2015
- Improved the effectiveness and efficiency of C# algorithms for ink analysis
  - Researched, developed, and implemented algorithms for biomedical applications
  - Translated automated ink discrimination algorithms from MATLAB to C#
  - Optimized image processing functions for speed and memory use
- Teaching: **University of Illinois**, Urbana, IL
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|---|---------------------------|
| TA for CS374 "Algorithms and Models of Computation" | August 2018-December 2018 |
|   | August 2019-December 2019 |
|   | January 2021-May 2021     |
| TA for CS173 "Discrete Structures"                  | January 2019-May 2019     |
| TA for CS473 "Algorithms"                           | August 2020-December 2020 |
| TA for CS586 "Combinatorial Optimization"           | January 2022-May 2022     |
- Carnegie Mellon University**, Pittsburgh, PA
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| Teaching Assistant for 15-251 (Intro CS Theory Course) | August 2015-May 2017 |
| Head TA for 15-251                                     | August 2017-May 2018 |
- Honors: Alan J. Perlis Undergraduate Student Teaching Award (awarded to one CMU CS student per year)  
Carnegie Mellon Senior Leadership recognition (for contributions to 15-251)  
Saburo Muroga Endowed Fellowship (Awarded to up to 5 UIUC CS grad students per year)