

Education

PhD in Computer Science, Stanford University

Sept 2016 – Sept 2021

- Thesis: *Algorithms for Fair Public and Private Resource Allocation*
- Thesis advisor: Ashish Goel

Bachelor of Science, Carnegie Mellon University

Aug 2012 – May 2016

- Thesis: *Algorithms for Social Good: Kidney Exchange*
- Thesis advisor: Tuomas Sandholm
- Allen Newell Award for Excellence in Undergraduate Research (best thesis in Computer Science)

Work Experience

Postdoctoral Researcher, UC Berkeley

Sept 2023 – present

- Advised by Stuart Russell
- Studying AI safety with a focus on caution under uncertainty
- Co-organized intern hiring process in 2024 and 2025
- Mentored five interns, resulting in five publications

Data Scientist, Lyft

June 2021 – May 2023

- Co-lead for multi-year initiative with 30+ people
- Created cross-org experimentation principles to ensure scientific rigor (used by 20+ people)
- Grew annual profit and revenue by millions of dollars
- Gave “Intro to Effective Altruism” talk

Research Intern, Google

Summer 2019, Summer 2020

- 2019: Developed a fair and efficient matching algorithm for two-sided markets
- 2020: Designed and tested reinforcement learning algorithm for optimal routing

Publications

Lead author: * | Senior author: †

AI Safety

1. [Safe Learning Under Irreversible Dynamics via Asking for Help](#)
B Plaut*, J Liévano-Karim, H Zhu, S Russell†
Under submission.
2. [Learning When Not to Learn: Risk-Sensitive Abstention in Bandits with Unbounded Rewards](#)
S Liaw*, B Plaut*
Under submission.
3. [YRC-Bench: A Benchmark for Learning to Coordinate with Experts](#)
M Danesh*, N Khanh, T Trinh, B Plaut
Transactions on Machine Learning Research (TMLR), 2025.
4. [Check Yourself Before You Wreck Yourself: Selectively Quitting Improves LLM Agent Safety](#)
V Bonagiri*, P Kumaraguru, N Khanh, B Plaut†
Neural Information Processing Systems (NeurIPS) 2025 Workshops on Reliable and Regulatable ML.
5. [Avoiding Catastrophe in Online Learning by Asking for Help](#)
B Plaut*, H Zhu, S Russell†
International Conference on Machine Learning (ICML), 2025.

6. [Probabilities of Chat LLMs Are Miscalibrated but Still Predict Correctness on Multiple-Choice Q&A](#)
B Plaut*, N Khanh, T Trinh
Transactions on Machine Learning Research (TMLR), 2025.
7. [Getting By Goal Misgeneralization With a Little Help From a Mentor](#)
T Trinh*, M Danesh, N Khanh, **B Plaut†**
Neural Information Processing Systems (NeurIPS) 2024 Workshop on Safe and Trustworthy Agents.

Resource allocation

By field convention, author order here is mostly alphabetical.

1. [Algorithms for Fair Public and Private Resource Allocation](#)
B Plaut.
PhD Thesis, Stanford University, 2021.
2. [Counteracting Inequality in Markets via Convex Pricing](#)
A Goel†, **B Plaut***
Conference on Web and Internet Economics (WINE), 2020.
3. [Almost Envy-free Repeated Matching in Two-sided Markets](#)
S Gollapudi†, K Kollias, **B Plaut***
Conference on Web and Internet Economics (WINE), 2020.
4. [Optimal Nash Equilibria for Bandwidth Allocation](#)
B Plaut.
Conference on Web and Internet Economics (WINE), 2020.
5. [Equality of Power and Fair Public Decision-making](#)
N Immorlica†, **B Plaut***, E G Weyl†
Conference on Web and Internet Economics (WINE), 2019.
6. [Markets Beyond Nash Welfare for Leontief Utilities](#)
A Goel†, R Hulett, **B Plaut***
Conference on Web and Internet Economics (WINE), 2019.
7. [Communication Complexity of Discrete Fair Division](#)
B Plaut*, T Roughgarden†
SODA 2019, SIAM Journal on Computing (SICOMP), 2020.
8. [Markets for Public Decision-making](#)
N Garg, A Goel†, **B Plaut***
Conference on Web and Internet Economics (WINE), 2018.
9. [Almost Envy-Freeness with General Valuations](#)
B Plaut*, T Roughgarden†
Symposium on Discrete Algorithms (SODA), 2018; SIAM Journal on Discrete Mathematics (SIDMA), 2020.
10. [Algorithms for Social Good: Kidney Exchange](#)
B Plaut.
Undergraduate Honors Thesis, Carnegie Mellon University, 2016.
11. [Hardness of the Pricing Problem for Chains in Barter Exchanges](#)
B Plaut*, JP Dickerson, T Sandholm†
Preprint, 2016.
12. [Position-Indexed Formulations for Kidney Exchange](#)
JP Dickerson, D Manlove†, **B Plaut**, T Sandholm†, J Trimble*
Economics and Computation (EC), 2016.
13. [Fast Optimal Clearing of Capped-Chain Barter Exchanges](#)
B Plaut*, JP Dickerson, T Sandholm†

Physical Chemistry

1. [Direct Observation of Folding Energy Landscape of RNA Hairpin at Mechanical Loading Rates](#)
H Xu*, B Plaut, X Zhu, M Chen, U Mavinkurve, A Maiti, G Song, K Murari, M Mandal†
The Journal of Physical Chemistry B, 2017.

Research mentees

- Pavel Czempin (2025), now a PhD student at USC
- Sarah Liaw (2025), now a PhD student at Harvard
- Vamshi Krishna Bonagiri (2025), now a PhD student MBZUAI
- Tu Trinh (2024), now a Machine Learning Research Engineer at Scale AI
- Juan Liévano-Karim (2024), now a Machine Learning Researcher at UC Berkeley

Other Experience

Intern Hiring Co-Lead, Center for Human-Compatible AI (CHAI)	<i>2024, 2025</i>
<ul style="list-style-type: none">• Oversaw entire hiring process with 300+ applicants• Designed interview questions and standardized interview procedures• Provided guidance to newer mentors	
Peer-reviewer	<i>2018 – present</i>
<ul style="list-style-type: none">• ICLR 2026• AISTATS 2026• NeurIPS 2025 (named top reviewer)• ICML 2025• Many more	
President, Co-founder, and primary instructor, Cardinal West Coast Swing	<i>Nov 2018 – Aug 2020</i>
<ul style="list-style-type: none">• Co-founded a west coast swing club at Stanford University.• Designed a curriculum for beginner lessons• Taught weekly lessons• Trained and supervised new teachers	
Teaching Assistant, Stanford University	<i>Mar 2018 – June 2018</i>
<ul style="list-style-type: none">• Duties included office hours, advising students on a final project, grading, and overall course structuring	
Teaching Assistant, Carnegie Mellon University	<i>Jan 2014 – Dec 2015</i>
<ul style="list-style-type: none">• Taught recitation, ran review sessions, mentored students on a final project• Also was “Head of Staff Morale” for a staff of 40 TAs. Organized social events, coordinated purchases, etc.	

Languages

Programming Languages	Python, C++, SQL, Unix, L ^A T _E X, Matlab
Natural Languages	English (native), Spanish (advanced proficiency)

Personal projects

- Music composition – I write music under the name Melancholy Flower (pun on “melon cauliflower”). Check out my [Spotify](#)!

- RAMbrandt – An algorithmic art-generator based on Markov chains, computer vision, and vector calculus.
- Ballroom Dance Video Tutorial – Database containing demonstration videos for ballroom dance moves.