

Matheus Venturyne Xavier Ferreira

PERSONAL DATA

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RESEARCH INTERESTS

Algorithm Design, Game Theory, Security

APPOINTMENTS

Harvard University, MA, USA

POSTDOCTORAL FELLOW IN COMPUTER SCIENCE

Starting Sept 2021

EDUCATION

Princeton University, NJ, USA

Ph.D in COMPUTER SCIENCE

Sept 2016 - Present

Committee: S. Matthew Weinberg (Chair), Arvind Narayanan, David Parkes, Mark Braverman, Ran Raz

Honors & Awards:

[School of Engineering and Applied Sciences Award for Excellence](#)

Dec 2020

Dean's Grant

Sept 2016 - June 2021

Fellowship in Engineering and Applied Sciences

Sept 2016 - June 2017

Universidade Federal de Itajuba, Itabira, MG, Brazil

B.S. with Honors in COMPUTER ENGINEERING (GPA: 93.3/100)

Jan 2011 - July 2016

University of California, San Diego, CA, USA

Vising student with a [BSMP Scholarship](#) (GPA: 3.92/4.00)

Jan 2014 - Dec 2014

HONORS AND AWARDS

- [Tapia Scholarship](#), Tapia Conference 2020
- [LATinE Fellow](#), Purdue University 2020
- [2020 CRA-WP Grad Cohort for URMD](#), CRA 2020
- [AGT Mentoring Workshop Grant](#), ACM 2019
- [Motion of Applause](#), Municipal Chamber of Itabira 2016
- [CNS Espresso Prize for Excellence in Networking](#), UC San Diego 2014
- 1st place in Line Follower Robot Competition, Unifei 2013

RESEARCH PAPERS (AUTHORS IN ALPHABETICAL ORDER)

1. Matheus V. X. Ferreira and S Matthew Weinberg. Proof-of-stake mining games with perfect randomness. In *Forthcoming in Proceedings of the 22nd ACM Conference on Economics and Computation*, EC 21, New York, NY, USA, 2021. Association for Computing Machinery
2. Matheus V. X. Ferreira and S. Matthew Weinberg. Credible, truthful, and two-round (optimal) auctions via cryptographic commitments. In *Proceedings of the 21st ACM Conference on Economics and Computation*, EC 20, pages 683–712, New York, NY, USA, 2020. Association for Computing Machinery
3. Tithi Chattopadhyay, Nick Feamster, Matheus V. X. Ferreira, Danny Yuxing Huang, and S. Matthew Weinberg. Selling a single item with negative externalities. In *The World Wide Web Conference*, WWW 19, pages 196–206, New York, NY, USA, 2019. Association for Computing Machinery

WORKING PAPERS (AUTHORS IN ALPHABETICAL ORDER)

1. Matheus V. X. Ferreira, Daniel J. Moroz, David C. Parkes, and Mitchell Stern. Dynamic posted-price mechanisms for the blockchain transaction-fee market, 2021

WORK EXPERIENCE & LONG TERM VISITS

Research Experience

- Research Assistant, Harvard University, MA, USA June - Sept 2020
Supervisor: Professor [David C. Parkes](#)
- Research Assistant, Princeton University, NJ, USA June 2017 - Present
Supervisor: Professor [S. Matthew Weinberg](#)
- Research Assistant, Universidade Federal de Minas Gerais, MG, Brazil Sept 2013 - Feb 2014
Supervisor: Professor Fernando Afonso Santos
- Research Assistant, Universidade Federal de Itajuba, MG, Brazil July 2011 - Feb 2013
Supervisor: Professor Carlos Henrique da Silveira

Engineering Experience

- Broadcom Corporation at San Diego, CA, USA June - Sept 2014
Software Development Engineer Intern in Bluetooth/NFC
Supervisor: David Hughes

UNDERGRADUATE STUDENTS MENTORING

- Tinashe Handina. *Princeton University*, starting a CS Ph.D. at Caltech June 2020 – Present
Combinatorial credible auctions.
- Catherine Yu. *Princeton University* June 2020 – Present
Incentives in the Algorand blockchain.

TEACHING EXPERIENCE

Princeton University - Teaching Assistant

Spring 2020	Junior Independent Work (COS 398)
Spring 2018	Economics and Computation (COS 445)
Fall 2017	Computation Geometry (COS 451)

Universidade Federal de Itajuba - Teaching Assistant

2015	Computer Security
2013	Objected-Oriented Programming (ECO 30)

SERVICE

Program Committee

- [Cryptoeconomic Systems](#), 2020, 2021.
- [Global Challenges in Economics and Computation](#), 2020.

Reviewing

- [ACM EC](#), 2021.
- [USENIX Security Symposium](#), 2021.
- [Games and Economic Behavior](#), 2020.
- [ACM Advances in Financial Technologies](#) (AFT), 2020.
- [Innovations of Theoretical Computer Science](#) (ITCS), 2019, 2020.
- [Conference on Web and Internet Economics](#) (WINE), 2018, 2019, 2020.

COMPUTER SKILLS

Programming: Python, C/C++, Java, Matlab, OpenGL, SQL, JavaScript, OCaml, R, Perl
Others: LINUX, Windows, Bash, GDB, Git, \LaTeX