

Enrique A. Areyan Viqueira

Education

- 2015 – Present **Doctoral Candidate, Computer Science**, *Brown University*, Providence, RI.
Advisor: Dr. Amy Greenwald
<https://cs.brown.edu/people/faculty/amy/>.
- 2017 **Master of Science, Computer Science**, *Brown University*, Providence, RI.
- 2015 **Master of Arts for Teachers, Math**, *Indiana University*, Bloomington, IN.
- 2013 **Master of Science, Computer Science**, *Indiana University*, Bloomington, IN.
- 2011 **Bachelor of Science, Business/Finance**, *University of Phoenix*, Online.
- 2010 **Licenciado en Computación**, *Universidad Central de Venezuela*, Caracas.

Experience

- 2015 – Present **Research Assistant**.
Computer Science Department, Brown University. Providence, RI.
- Applied Research Scientist Intern**, *Amazon.com*, Seattle, WA.
- Summer 2019 Sponsored Products, Mechanism Design. Auction Optimization.
- Summer 2018 Sponsored Brands, Machine Learning Science. Advertisement relevance.
- Summer 2017 Machine Learning Science, Adaptive buying strategies for tail products.
- 2013 – 2015 **Associate Instructor, Mathematics Department**.
Indiana University. Bloomington, IN.
- 2012 – 2013 **Research and Teaching Assistant, School of Informatics and Computing**.
Indiana University. Bloomington, IN.
- 2009 – 2011 **Lecturer, Course Coordinator, and Teaching Assistant**.
Universidad Central de Venezuela. Caracas, Venezuela.
- 2008 – 2011 **Web Development Startup**.
Grupo ESW LLC. Caracas, Venezuela.
- 2003 – 2008 **Web Analyst and Project Leader**.
GlobalWebTek Ltd. Caracas, Venezuela.

Honors and Awards

- 2019 **2nd Place**, *International Automated Negotiating Agents Competition (ANAC-SCML)*,
International competition to advance research on automated agent negotiation.
<http://web.tuat.ac.jp/~katfuji/ANAC2019/>.
- 2018 **Kanellakis Fellowship**, *Brown University*,
Awarded by a committee of the faculty to students accepted into the C.S. Ph.D. program.
http://cs.brown.edu/degrees/doctoral/pck_fellowship.html.
- 2014 **Top Up Fellowship**, *College of Arts and Sciences, Indiana University*,
Award recognizing admission to a highly competitive mathematics graduate program.
- 2006 **GlobalWebTek Scholarship**, *GlobalWebTek Ltd. Caracas, Venezuela*,
Fully-funded scholarship to pursue online Bachelor's degree in Finance.

Teaching Experience

- Spring 2020 **Instructor** - Introduction to Computation for the Humanities and Social Sciences.
Brown University, students: TBD.
- Spring 2018 **Co-Instructor** - Algorithmic Game Theory.
Brown University, students: 30
- Fall 2017 **Teaching Assistant** - Artificial Intelligence.
Brown University, students: 60
- Spring 2015 **Instructor** - Mathematics for Elementary Teachers I.
Indiana University, Bloomington, students: 25
- Fall 2014 **Instructor** - Mathematics for Elementary Teachers I.
Indiana University, Bloomington, students: 40
- Spring 2014 **Instructor** - Mathematics for Elementary Teachers I.
Indiana University, Bloomington, students: 25
- Fall 2014 **Teaching Assistant** - Finite Math.
Indiana University, Bloomington, students: 40
- Spring 2013 **Teaching Assistant** - Linear Algebra.
Indiana University, Bloomington, students: 22
- Fall 2013 **Teaching Assistant** - Calculus III.
Indiana University, Bloomington, students: 20
- Sumer 2013 **Teaching Assistant** - Mathematical Foundations of Informatics.
Indiana University, Bloomington, students: 30
- Spring 2011 **Teaching Assistant and Lab Instructor** - Algorithms and Data Structures I.
Universidad Simon Bolivar, Caracas, Venezuela students: 20
- Spring 2011 **Teaching Assistant** - Discrete Structures III.
Universidad Simon Bolivar, Caracas, Venezuela, students: 20
- Fall 2010 **Teaching Assistant** - Discrete Structures I.
Universidad Simon Bolivar, Caracas, Venezuela, students: 20
- Spring 2010 **Instructor** - Discrete Mathematics II.
Universidad Central de Venezuela, students: 25
- Fall 2009 **Teaching Assistant** - Discrete Mathematics II.
Universidad Central de Venezuela, students: 25

Teaching Development

Teaching Certificates by the Sheridan Center for Teaching & Learning Brown University

- Spring 2018 **Certificate I:** Sheridan Teaching Seminar - Reflective Teaching

Advising

Master Theses

- 2017 Co-Advised Luke Camery (now at Google) on his Master Thesis:
On Information Aggregation in Prediction Markets.

Publications

Peer-reviewed Articles

- [C.7] **Enrique Areyan Viqueira**, Cyrus Cousins, Yasser Mohammad, and Amy Greenwald. (2019). Empirical Mechanism Design: Designing Mechanisms from Data. *22nd International Conference, Principles and Practice of Multi-Agent Systems (UAI)*.
- [C.6] **Enrique Areyan Viqueira**, Amy Greenwald, Cyrus Cousins, and Eli Upfal. (2019). Learning Simulation-Based Games from Data. *Proceedings of the 18th International Conference on Autonomous Agents and MultiAgent Systems (AAMAS)*.
- [C.5] Yasser Mohammad, **Enrique Areyan Viqueira**, Nahum Alvarez Ayerza, Amy Greenwald, Shinji Nakadai, and Satoshi Morinaga. (2019). Supply Chain Management World - A Benchmark Environment for Situated Negotiations. *Proceedings of the Thirty-Fifth Conference on Uncertainty in Artificial (PRIMA)*.

- [C.4] **Enrique Areyan Viqueira**, Amy Greenwald, and Victor Naroditskiy. (2017). On Approximate Welfare- and Revenue-Maximizing Equilibria for Size-Interchangeable Bidders. *Proceedings of the 16th Conference on Autonomous Agents and MultiAgent Systems (AAMAS)*.
- [C.3] **Enrique Areyan Viqueira**. Principled Autonomous Decision Making for Markets. (2017). *Proceedings of the 16th Conference on Autonomous Agents and MultiAgent Systems (AAMAS)*.
- [C.2] **Enrique Areyan Viqueira**, Amy Greenwald, Victor Naroditskiy, and Daniels Collins*. (2016). On Revenue-Maximizing Walrasian Equilibria for Size-Interchangeable Bidders. *Agent-Mediated Electronic Commerce. Designing Trading Strategies and Mechanisms for Electronic Markets (AMEC/TADA)*.
- [C.1] Swetha Toshniwal, Geoffrey Brown, Kevin Cornelius*, Gavin Whelan*, and **Enrique Areyan Viqueira**. (2012). Evaluating Assisted Emulation for Legacy Executables. *International Conference on Preservation of Objects. Agent-Mediated Electronic Commerce. Designing Trading Strategies and Mechanisms for Electronic Markets (iPRES)*.

Informal Publications

- [I.3] **Enrique Areyan Viqueira**, Amy Greenwald, Cyrus Cousins, and Eli Upfal. (2019). Learning Equilibria Simulation-Based Games from Data. *CoRR.1905.13379*.
- [I.2] **Enrique Areyan Viqueira**, Amy Greenwald, and Victor Naroditskiy. (2017). On Approximate Welfare- and Revenue-Maximizing Equilibria for Size-Interchangeable Bidders. *CoRR.1708.03097*.
- [I.1] **Enrique Areyan Viqueira**, and Ignacio Calderon. (2010). Ant Colony based software framework to solve optimization problems. *Jornadas de Investigación y Extensión. Facultad de Ciencias. Universidad Central de Venezuela*.

Publications in Industry

- [A.3] **Enrique Areyan Viqueira**, Hao Li, Barath Ezhilan, Jayash Koshal and MohammadTaghi Hajiaghayi. (2019). Budget-aware allocation strategies for Sponsored Production auctions. Final research internship report at *Amazon.com*.
- [A.2] **Enrique Areyan Viqueira**, and Jayash Koshal. (2018). Semantic Shopper Intent Algorithm (SSIA) for Non-Latin Characters. Final research internship report *Amazon.com*, and submission to *Amazon Machine Learning Conference (AMLC)*.
- [A.1] **Enrique Areyan Viqueira**, Jayash Koshal, and Hernan Awad. (2017). A Clustering Approach to Selection of Fringe ASINs. Final research internship report *Amazon.com*.

Presentations and Poster

- [P.5] **Enrique Areyan Viqueira**, Cyrus Cousins, Yasser Mohammad, and Amy Greenwald. (2019). Empirical Mechanism Design: Designing Mechanisms from Data. Invited presentation at *The 2019 INFORMS Annual Meeting (INFORMS)*.
- [P.4] Kweku Kwegyir-Aggrey*, **Enrique Areyan Viqueira**, and Sarah Brown. (2019). Estimating Competitive Equilibria for Convex Valuations. Poster at *Black in AI (BAI)*.
- [P.3] **Enrique Areyan Viqueira**, Amy Greenwald, Cyrus Cousins, and Eli Upfal. (2019). Learning Simulation-Based Games from Data. Poster at *The 20th ACM Conference on Economics and Computation (EC)*.
- [P.2] **Enrique Areyan Viqueira**, Amy Greenwald, and Victor Naroditskiy. (2017). On Approximate Welfare- and Revenue-Maximizing Equilibria for Size-Interchangeable Bidders. Poster at *New York Computer Science and Economics Day (NYCE)*.
- [P.1] **Enrique Areyan Viqueira**, and Esfandiar Haghverdi. (2015). Predicting order direction using support vector machines. Student presentation at *The 6th Annual Conference on High-Frequency Finance and Data Analytics (HF2015)*.

*Undergraduate or incoming graduate student as a co-author

Open-Source Software

- 2019 pySEGTA: a python library for statistical, Empirical Game-Theoretical Analysis. [C.6].
Source: <https://github.com/eareyan/egta>
- 2016-2018 AdX Game: an implementation of the AdX Game. [C.2].
Source: <https://github.com/eareyan/adxgame>
- 2015-2018 Envy-Free prices: a flexible JAVA framework for Combinatorial Matching Markets [C.4].
Source: <https://github.com/eareyan/envy-free-prices>

Service

Professional Service: Conference Peer-Reviewing

- 2019 Principles and Practice of Multi-Agent Systems (PRIMA).

Committees

- 2019 Diversity Committee, Computer Science Department, Brown University.
- 2016 Computer Science Department Graduate Student Advocate to the Graduate Student Council, Brown University.

Languages

- English Full professional proficiency
- Spanish Native or bilingual proficiency