

Danusha Rajapaksa

Crypto Market Microstructure and Market Design

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Education

2017–2025 **Ph.D. in Applied Economics**, *University of Saskatchewan, Canada*
(M.A.–Ph.D. transfer in 2019)

- Developed information-based pricing models to study asset price volatility and shock propagation in decentralized crypto markets.
- Employed heteroskedasticity-based identification methods to uncover underlying market structure and price formation mechanisms.
- Managed and analyzed large-scale transactional and market data from multiple sources to generate empirical insights.
- Published and received R&R in top field journals: *Journal of Economic Behavior & Organization*, *Journal of Money, Credit and Banking*.

2012–2017 **B.A. Honours Economics** *University of Saskatchewan, Canada*

Experience

2022–2025 **Sessional Lecturer**, Department of Economics
University of Saskatchewan, Saskatoon, Canada

- Courses Taught:
 - ECON 311: Money, Banking, and Capital Markets
 - ECON 211: Intermediate Microeconomics
 - ECON 114: Introductory Macroeconomics

2016 **Ministerial Assistant to the Minister of Justice**
Government of Saskatchewan, Regina, Canada

- Conducted quantitative policy research for Saskatchewan’s Ministry of Justice using provincial data.
- Delivered briefing notes and policy recommendations based on empirical analysis.

Methods & Tools

Methods & Empirical Expertise

- Structural and reduced-form asset pricing
- Heteroskedasticity-based identification (VAR / SVAR)
- Network analysis on blockchain transaction data
- Large-scale data pipelines (BigQuery, SQL)
- Machine learning for market structure inference

Programming Tools

- Analytics: R (dplyr, ggplot), SQL, BigQuery
- Scientific: Python, PyTorch, Matlab
- Web / Systems: HTML/CSS, JavaScript (D3), web3
- Infrastructure: Git, AWS, GCP, Compute Canada, Solidity

Awards, Grants & Recognition

- **Exponential Science Fellowship** (2025).
- **CBER Forum — Academic Job Market Candidate** (2024–2025).
- **Financial Management Association Best Discussant Award — Nomination** (2025). Nominated for Best Discussant at the FMA Annual Meeting for insightful discussion of “*Private Settlement in Blockchain Systems.*”
- **Google Academic Research Grant** (2024). Awarded to study Ethereum transaction networks and stablecoin price dynamics.
- **University of Saskatchewan Graduate Scholarship** (2017).
- **Bank of Canada Governor’s Challenge — Grand Finalist** (2015). Presented policy analysis and interest-rate recommendations to achieve the inflation target.

Publications

Published Articles

- **Miner Competition and Transaction Fees**, with Enchuan Shao, *Journal of Economic Behavior & Organization*, 2024. [DOI](#).

Working Papers

- **On the Relationship between Tether and Other Cryptocurrencies**, with Enchuan Shao, Working Paper, 2025. [SSRN](#).
- **The Entry of Bitcoin Mining and its Welfare Implications**, with Enchuan Shao, Revise and Resubmit, *Journal of Money, Credit and Banking*, 2021. [SSRN](#).

Work in Progress

- **Network Origins of Cryptoasset Volatility.**
- **The Double-Edged Sword of Regulation in Crypto Markets**, with Motahhareh Moravvej-Hamedani.

Conferences and Presentations

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| 2025 | Financial Management Association Annual Meeting , Vancouver, Canada
Discussant: <i>Private Settlement in Blockchain Systems.</i> |
| | Canadian Economic Association Annual Meeting , UQAM, Montreal, Canada
Presented: <i>On the Relationship between Tether and Other Cryptocurrencies.</i> |
| 2024 | Prairie Finance Conference , University of Saskatchewan, Saskatoon, Canada
Presented: <i>On the Relationship between Tether and Other Cryptocurrencies.</i> |
| | University of Lethbridge — Guest Seminar , Calgary, Canada
Presented: <i>Blockchain Consensus and the Double-Spending Problem.</i> |
| 2022 | Economics of Financial Technology Conference , University of Edinburgh, Edinburgh, UK
Presented: <i>Miner Competition and Transaction Fees.</i> |

Selected Workshops and Summer Schools

2025 **CBER–CDFT–DSF Summer School**, Columbia University

2024 **Future of the Monetary System Workshop**, Bank of Canada

References

Dr. Enchuan Shao

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Dr. Maxym Chaban

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Other Information

Languages English (near native), Sinhala (native), French (basic)

Citizenship Canada, Sri Lanka