

# Christina Ovezik

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## Education

### PhD Cyber Security, Privacy and Trust

UNIVERSITY OF EDINBURGH

Edinburgh, UK

May. 2023 - Apr. 2026 (expected)

- Researching all aspects of blockchain decentralization, including how to define it, how to measure it and how to design mechanisms that induce it
- Advised by Prof. Aggelos Kiayias

### MSc Advanced Technology for Financial Computing

UNIVERSITY OF EDINBURGH

Edinburgh, UK

Sep. 2020 - Aug. 2021

- Graduated with Distinction (82 / 100)
- Dissertation: Convergence and Equilibria of Proof-of-Stake Blockchains (Grade: 85 / 100)

### Degree in Informatics

ARISTOTLE UNIVERSITY OF THESSALONIKI

Thessaloniki, Greece

Sep. 2014 - July 2018

- Graduated with Distinction (9.24 / 10) - First in Class
- Diploma Thesis: Applying Data Mining Techniques in Product Promotions (Grade: 10 / 10)

## Work Experience

### Research Engineer

BLOCKCHAIN TECHNOLOGY LAB, UNIVERSITY OF EDINBURGH

Edinburgh, UK

Sept. 2021 - Apr. 2023

- Developed a simulation engine for reward mechanisms of Proof-of-Stake blockchains, applying game-theoretic models to assess equilibrium properties and inform protocol design.

### Software Engineer

CHANNEL VAS

Heraklion, Greece

Feb. - Aug. 2020

- Maintained and developed software for serving the company's purpose of providing reliable mobile financial services. Used Java, PostgreSQL and other technologies.

### Consultant

AKKA TECHNOLOGIES

Toulouse, France

Sep. 2018 - Nov. 2019

- Product Owner at *Airbus* (on-site subcontractor): Acted as the focal point for a Flight Test Factory project. Coordinated cross-functional teams using Agile Methodologies (SAFe).
- Internal projects: Analyzed financial and project management data to create interactive dashboards (Python, R, Power BI). Composed technical reports and comprehensive tutorials.

## Invited Talks

### Science of Blockchain Conference (SBC)

"Measuring Blockchain Decentralization"

Berkeley, USA

Aug. 2025

### International Conference on Applied Cryptography and Network Security (ACNS)

"SoK: Measuring Blockchain Decentralization"

Munich, Germany

Jun. 2025

### Webinar: A Toolbox for Regulators and Users to Measure Blockchain Decentralization

"Edinburgh Decentralization Index"

Edinburgh, UK

May 2025

### Scottish Government Workshop: Digital Identity and Trust

"Decentralization & the Edinburgh Decentralization Index (EDI)"

Edinburgh, UK

Sep. 2024

### Financial Cryptography and Data Security (FC)

"SoK: A Stratified Approach to Blockchain Decentralization"

Willemstad, Curaçao

Mar. 2024

### International School on Foundations of Security Analysis and Design (FOSAD)

"Blockchain Decentralization: A Stratified Approach"

Bertinoro, Italy

Aug. 2023

### **Cardano CIP-1694 Community Workshop**

“Edinburgh Decentralization Index (EDI)”

Edinburgh, UK

Jul. 2023

### **IOG - University of Edinburgh Research Week**

“Rewards Sharing Simulation Engine”

Edinburgh, UK

Nov. 2022

### **ACM International Conference on AI in Finance (ICAIF)**

“Decentralization Analysis of Pooling Behavior in Cardano Proof of Stake”

New York, USA

Nov. 2022

## **Publications**

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### **SoK: Measuring Blockchain Decentralization**

Christina Ovezik, Dimitris Karakostas, Mary Milad, Aggelos Kiayias, Daniel W. Woods  
23<sup>rd</sup> International Conference on Applied Cryptography and Network Security (2025)

### **SoK: A Stratified Approach to Blockchain Decentralization**

Christina Ovezik, Dimitris Karakostas, Aggelos Kiayias  
28<sup>th</sup> International Conference Financial Cryptography and Data Security (2024)

### **Statistical Confidence in Mining Power Estimates for PoW Blockchains**

Mary Milad, Christina Ovezik, Dimitris Karakostas, Daniel W. Woods  
3<sup>rd</sup> International Cryptoasset Analytics Workshop (2024)

### **Decentralization Analysis of Pooling Behavior in Cardano Proof of Stake**

Christina Ovezik and Aggelos Kiayias  
3<sup>rd</sup> ACM International Conference on AI in Finance (2022)

## **Teaching and Supervision**

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### **Blockchains and Distributed Ledgers (BDL), University of Edinburgh**

TEACHING ASSISTANT, 2022 - PRESENT

Delivered a lecture on smart contracts and undertook various other duties, including designing exams, marking coursework and responding to student questions.

### **Introduction to Modern Cryptography (IMC), University of Edinburgh**

TUTOR, 2024

Delivered cryptography tutorials to small groups of UG and MSc students.

### **MSc Dissertations, University of Edinburgh**

TEACHING ASSISTANT, 2023

Co-supervised 8 MSc students with blockchain-related dissertation projects, such as extracting data from full nodes and simulating blockchain reward schemes.

## **Awards and Scholarships**

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### **Advanced Technology for Financial Computing MSc Dissertation Prize (2021)**

For Highest Mark in the Advanced Technology for Financial Computing MSc Dissertation, University of Edinburgh

### **Claire Jones Prize (2021)**

For Best Performing Female Student in the School of Informatics, University of Edinburgh

### **A.G. Leventis Foundation Educational Grant (2020)**

Merit-based grant to support MSc studies

### **Syn-enosis Scholarship (2020)**

Merit-based grant to support MSc studies

### **Hypatia Award (2018)**

For Best Performing Female Student in the School of Informatics, Aristotle University of Thessaloniki

## **Academic Service**

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**Program Committee:** AFT workshop on Scalability & Interoperability of Blockchains (SIB) 2024

**Reviewer:** AFT 2024, CANS 2024, DLT 2024, MARBLE 2023-24, Tokenomics 2023, DAPPS 2023

## Skills

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**Languages:** Greek (Native), English (Proficient), French (Intermediate)  
**Programming:** Python, Java, Solidity, SQL, R, Javascript, Git, REST

## Volunteering

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### Prewired

TREASURER AND MENTOR

*Edinburgh, UK*

*May 2022 - Present*

### Refugee Community Kitchen

FUNDRAISING VOLUNTEER

*Edinburgh, UK*

*Dec. 2020 - May 2022*

### 9<sup>th</sup> Hellenic Conference on Artificial Intelligence

TECHNICAL AND ADMIN SUPPORT VOLUNTEER

*Thessaloniki, Greece*

*Oct. 2016*