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Driving license

Sarah Azouvi

Experience

Jan 2020 - Present **Research Scientist**, *Protocol Labs*.
Consensus Lab

Sept 2018 - Dec 2019 **Research Assistant**, *University College London*.
Research on applied cryptography, game theory and distributed systems

June - May 2019 **Research Intern**, *Facebook/Calibra*.
Research on consensus protocols

March - May 2019 **Research Consultant**, *Protocol Labs*.
Research on consensus protocols

2017–2019 **Teaching Assistant**, *University College London*.
Teaching assistant for a Beginner's Python course, Theory of Computation and Cryptocurrencies (MSc course)

Various.
Summer internships at Credit Suisse, CNRS, Thales Alenia Space, Tutoring

Education

Sept 2014–2019 **MRes + PhD Computer Science**, University College London.
- PhD supervisors: Sarah Meiklejohn and George Danezis
- Research interests: Applied Cryptography, Decentralized Systems, Game Theory
- Scholarship granted by the EPSRC (Engineering and Physical Sciences Research Council)
- Master of Research Dissertation: Anomaly Detection, Supervisors: George Danezis and Gianluca Stringhini

2013–2014 **MSc Financial Mathematics**, *University College London*, MSc Thesis : Stochastic Control with Lévy Dynamics.
Grade : Distinction

2011–2013 **École Supérieure d'Electricité, Supélec**, *Paris*, One of the leading Engineering Grandes Ecoles in the fields of Electrical Engineering, Computer Science and Telecommunications, *GPA – 3.5/4*.

2008–2011 **Lycée Henri IV**, *Preparatory years for the highly competitive examination to the French "Grandes Ecoles" for scientific studies*, Paris.
Mathematics Major

Computer skills

Programming Solidity, Go ,C++, java, Python, Matlab, R, Julia

Other LaTeX, Unix, Microsoft Office, Maple, Ansys Maxwell, Simulink, SQL

Other Activities

Current Mentor for Bitcoin workshops at the London Cryptoparty. Member of the following programming groups: Pyladies London, Women Who Code London, Geekettes, LeanIn (hands-on workshops, open-source contributions, and talks)

2012 In charge of partnerships with corporations for the Student's Union at Supélec (BCG, Thales, Société Générale,...). As part of assignment: head of organization of the yearly Career Fair in Supélec (500 students, 30 corporations), head of organization of Handicap Day with Starting Block charity.

2011-2012 Involved in the organization of Gala Supélec 2011 and 2012 (5000 people) as Communication Manager (find partnerships for the event)

Languages

French (mother tongue), English (fluent), Spanish (elementary)

Papers

[1] Sarah Azouvi, Mustafa Al-Bassam, and Sarah Meiklejohn. "Who am i? secure identity registration on distributed ledgers". In: *Data Privacy Management, Cryptocurrencies and Blockchain Technology: ESORICS 2017 International Workshops, DPM 2017 and CBT 2017, Oslo, Norway, September 14-15, 2017, Proceedings*. Springer. 2017, pp. 373–389.

[2] Sarah Azouvi and Daniele Cappelletti. "Private attacks in longest chain proof-of-stake protocols with single secret leader elections". In: *Proceedings of the 3rd ACM Conference on Advances in Financial Technologies*. 2021, pp. 170–182.

[3] Sarah Azouvi, George Danezis, and Valeria Nikolaenko. "Winkle: Foiling long-range attacks in proof-of-stake systems". In: *Proceedings of the 2nd ACM Conference on Advances in Financial Technologies*. 2020, pp. 189–201.

[4] Sarah Azouvi and Alexander Hicks. "Decentralisation conscious players and system reliability". In: *Financial Cryptography and Data Security: 26th International Conference, FC 2022, Grenada, May 2–6, 2022, Revised Selected Papers*. Springer. 2022, pp. 426–443.

[5] Sarah Azouvi and Alexander Hicks. "SoK: Tools for Game Theoretic Models of Security for Cryptocurrencies". In: https://cryptoeconomicsystems.pubpub.org/pub/93hc4t7q. Nov. 18, 2020. URL: `https://cryptoeconomicsystems.pubpub.org/pub/93hc4t7q`.

[6] Sarah Azouvi, Alexander Hicks, and Steven J Murdoch. "Incentives in security protocols". In: *Security Protocols XXVI: 26th International Workshop, Cambridge, UK, March 19–21, 2018, Revised Selected Papers 26*. Springer. 2018, pp. 132–141.

[7] Sarah Azouvi, Mary Maller, and Sarah Meiklejohn. "Egalitarian society or benevolent dictatorship: The state of cryptocurrency governance". In: *Financial Cryptography and Data Security: FC 2018 International Workshops, BITCOIN, VOTING, and WTSC, Nieuwpoort, Curaçao, March 2, 2018, Revised Selected Papers 22*. Springer. 2019, pp. 127–143.

[8] Sarah Azouvi, Patrick McCorry, and Sarah Meiklejohn. "Betting on blockchain consensus with fantomette". In: *arXiv preprint arXiv:1805.06786* (2018).

[9] Sarah Azouvi and Marko Vukolić. "Pikachu: Securing pos blockchains from long-range attacks by checkpointing into bitcoin pow using taproot". In: *arXiv preprint arXiv:2208.05408* (2022).

[10] Sarah Azouvi et al. "Modeling Resources in Permissionless Longest-chain Total-order Broadcast". In: *arXiv preprint arXiv:2211.12050* (2022).

[11] Shehar Bano et al. "SoK: Consensus in the age of blockchains". In: *Proceedings of the 1st ACM Conference on Advances in Financial Technologies*. 2019, pp. 183–198.

[12] Ayelet Lotem et al. "Sliding window challenge process for congestion detection". In: *Financial Cryptography and Data Security: 26th International Conference, FC 2022, Grenada, May 2–6, 2022, Revised Selected Papers*. Springer. 2022, pp. 512–530.