CURRICULUM VITÆ

Antoine VENDEVILLE

Born on April 23$^{\text{rd}}$, 1994 in Paris, France (29 years old).

PhD student
University College London
Department of Computer Science
Centre for Doctoral Training in Cybersecurity

Supervisory team
Dr. Benjamin Guedj
Dr. Shi Zhou

Other affiliations
The Inria London programme (through Dr. Benjamin Guedj)

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ACADEMIC POSITIONS

2024-2026

Post-doctoral researcher at Médialab Siences Po, Paris. Formal Computational Socio-Politics Group, directed by Dr. Pedro Ramaciotti Morales. Research topics: mathematical modeling of political opinions, interactions in online social platforms, and algorithmic recommendations.

2019-2023

PhD student, University College London, Department of Computer Science, Centre for Doctoral Training in Cybersecurity. *The echo chamber effect in social networks: theoretical analysis and steering strategies.* Supervised by Dr. Benjamin Guedj and Dr. Shi Zhou. Expected graduation: December 2023.

Summer 2019

Research assistant, Sorbonne Université. Department of Computer Science (LiP6), team NPA. Supervised by Anastasios Giovanidis, Bruno Baynat, Clémence Magnien. Duration 5 months.

Summer 2018

Research assistant, Sorbonne Université. Department of Computer Science (LiP6), team NPA. Supervised by Anastasios Giovanidis, Bruno Baynat, Clémence Magnien. Duration 5 months.

Other affiliations

- Research associate at the Digital Speech Lab, directed by Jeffrey Howard.
- Member of the Complex Systems Society.

Awards and Grants

Recipient of the yrCSS Bridge Grant, a stipend of 500€ to support a collaboration with Fernando Diaz-Diaz from the University of the Balearic Islands.

Research visits

- IFISC, University of the Balearic Islands, Palma de Mallorca (Autumn 2023).
- SAILab, University of Siena, Italy (Autumn 2023).
- LiP6, Sorbonne Université, Paris (Spring 2022).

Publications

2023

- A. Vendeville, B. Guedj and S. Zhou. On discord in the voter model for complex networks. In review. Preprint on arXiv.
- A. Vendeville, A. Giovanidis, E. Papanastasiou and B. Guedj. Opening up echo chambers via optimal content recommendations. Proceedings of Complex Networks and Their Applications XI, 2023. Link.

2022

- A. Vendeville, B. Guedj and S. Zhou. Towards control of opinion diversity by introducing zealots into a polarised social group. Proceedings of Complex Networks and Their Applications X, 2022. Link.

2021

- A. Giovanidis, B. Baynat, C. Magnien and A. Vendeville. Ranking Online Social Users by Their Influence. IEEE/ACM Transactions on Networking, 2021. Link.
- A. Vendeville, B. Guedj and S. Zhou. Forecasting elections results via the voter model with stubborn nodes. Applied Network Science 6, 1, 2021. Link.

2019

- A. Giovanidis, B. Baynat and A. Vendeville. Performance Analysis of Online Social Platforms. Proceedings of IEEE Conference on Computer Communications, 2019. Link.

Talks and Presentations

2023

- Opening up Echo Chambers via Optimal Content Recommendation. Presented on April 25, 2023 at the MédiaLab Sciences Po Paris.
- Opening up Echo Chambers via Optimal Content Recommendation. Presented on April 20, 2023 at the NetPLACE.
- Opening up Echo Chambers via Optimal Content Recommendation. Presented on April 14, 2023 at the Data Natives seminar at City University, London.

2022

- Opening up Echo Chambers via Optimal Content Recommendation. Presented on November 8, 2022 at Complex Networks 2022.
- Active links in the voter model with zealots, poster presented on October 20, 2022 at Conference on Complex Systems.
- Recommendation of content to mitigate the echo chamber effect, poster presented on October 17, 2022 at Conference on Complex Systems.
- Opening up Echo Chambers via Optimal Content Recommendation. Presented on 29, 2022 at Centre d'Economie de la Sorbonne, for the Networks and Games seminar.
- Fighting political echo chambers via content recommendation: Method and application to the 2017 French presidential elections, presented on June 29, 2022 at the Mediterranean School of Complex Networks (MSCX).
- Depolarising Social Networks: Optimisation of Exposure to Adverse Opinions in the Presence of a Backfire Effect, presented on April 12, 2022 at Sorbonne Université to the Complex Networks and NPA teams.
- Voter model with zealots for opinion control and forecast of election results, presented on January 7, 2022 at University College London, for the Information and Decision Systems research group (IDS).

2021

- Towards control of opinion diversity by introducing zealots into a polarised social group, poster presented on December 1, 2021 at Complex Networks 2021.
- Voter Model with Stubborn Agents: from Theoretical Solutions to Prediction of Political Elections, presented on July 5, 2021 at Networks 2021.

Teaching

2021 Benjamin Guedj and I supervised Valentin Kilian for a 2 months research internship on opinion dynamics at Inria.
2019-2023 Teaching assistant at University College London for Complex Networks and Web (COMP0123). 30h per academic year, 120h total.
2020-2021 Teaching assistant at University College London for Introductory Programming (COMP0066). 30h.
2013-2017 Private tutor of mathematics for high school students in Paris.

EDUCATION

2018-2019 Master 2 Data Science, Université Claude Bernard, Lyon.
2017-2018 Master 2 Mathematical Modelling, Sorbonne Université.
2015-2017 Master 1 Mathematics and Applications, Sorbonne Université.
2012-2015 Bachelor in Mathematics and Applications, Sorbonne Université.

PEER REVIEWS

I have reviewed papers for the following journals.

- Nature Scientific Reports (5 papers, 2020-2022).

- PLOS ONE (1 paper, 2022).

- Computer Communications (1 paper, 2022).

- Proceedings of the Royal Society A (1 paper, 2021).