Loizos Bitsikokos

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Education

Aug 2024–   **Purdue University**
West Lafayette, IN, USA
PhD, Communication (Expected Aug 2029).
- GPA: 4.00/4.00
- Concentrations: Media, Technology, and Society; Organizational Communication
- Advisor: Prof. Jeremy Foote
- Committee: Prof. Stacey Connaughton; Prof. Seungyoon Lee; Prof. Lindsay Weinberg

Jun 2024   **University of Chicago**
Chicago, IL, USA
MA, Computational Social Science
- GPA: 3.98/4.00
- Concentration: Sociology
- Thesis: *Living in the Hub: A Platform Study of Desire Semantics*
- Advisors: Prof. Michael Rossi; Dr. Pedro Alberto Arroyo.

Feb 2022   **National Technical University of Athens**
Athens, Greece
MSc, Mathematical Modelling in Modern Technologies & Financial Engineering
- GPA: 9.3/10 (Top 1% of class)
- Concentration: Mathematics of Data Science
- Thesis: *User influence studies in online social networks*
- Advisor: Prof. John Coletsos

Nov 2018   **National Technical University of Athens**
Athens, Greece
BSc/Integrated Master's in Applied Mathematics and Physics
- GPA: 8.87/10 (Top 4% of class)
- Concentrations: Nuclear & Particle Physics; Theoretical & Computational Physics
- Thesis: *Electron Cloud Computational Studies*
- Advisor: Prof. Konstantinos Anagnostopoulos

Professional Experience

Jan 2020–Jul 2022	Backend Software Engineer	*Athens, Greece*

Intralot Tech S.A.

Developed algorithms and probability models for sports; built software for global distribution; performed data analysis, parameter tuning, and model evaluation; QA testing and bug fixes; developed and tested cash-out algorithms and risk analysis; worked in an AGILE team of engineers, mathematicians, and statisticians.

Publications

Clipperton, J., & **Bitsikokos**, L. (2025). You do not get to tell me about sad: Swiftian Saudade in Taylor Swift's lyrics. *Psychology of Aesthetics, Creativity, and the Arts.* Advance online publication. doi:10.1037/aca0000810

Sawicki, J., **Bitsikokos**, L., Belinskaya, Y., Ganzha, M., & Paprzycki, M. (2025). Leveraging Network Analysis and NLP for Intelligent Data Mining of Taxonomies and Folksonomies of PornHub. *Applied Sciences, 15*(17), 9250. doi:10.3390/app15179250

Publications Under Review

- **Bitsikokos**, L. (2025). *From Tokens to Meaning: A Computational Grounded Theory Analysis of Porn Video Categories.* [Manuscript submitted for publication, under review].
- Foote, J., Kumar, D., Jha, B., Funkhouser, R., **Bitsikokos**, L., Goel, H., & Hsuen-Chi C. (2025). *Taming toxic talk: Using chatbots to intervene with users posting toxic comments.* [Manuscript submitted for publication, under review].
- Foote, J., Kumar, D., Goel, H., & **Bitsikokos**, L. (2025). *Running Reddit Experiments with Conversational AI Agents.* [Manuscript invited for publication in special issue, under review].
- **Bitsikokos**, L. (2025). *Connected to the Grid: Extending Baudrillard's* Simulacra and Simulation *to Online Media Platforms.* [Manuscript submitted for publication, under review].

Conference Presentations

- **Bitsikokos**, L., & Stolzenberg, R. M. (2025, June). *Mapping Justice: A Social Network Analysis of U.S. District Court Citations.* International Network for Social Network Analysis Sunbelt, Paris, France.
- Akom, M., Sawyer, H., **Bitsikokos**, L., Reed, A. L., Ojike, F. C., Ofori Boateng, P., Nwoko, O. B., Mohammed, I., & Lee, S. (2025, June). *GIFTS: Welcome Aboard: Simulating an Outsider-Within's Organizational Assimilation and Socialization through Role-Play.* ICA Conference, Denver, CO, USA.
- Clipperton, J., & **Bitsikokos**, L. (2025, April). *You don't get to tell me about sad: Swiftian Saudade in Taylor Swift's lyrics.* Midwest Political Science Association, Chicago, IL, USA.
- Clipperton, J., & **Bitsikokos**, L. (2025, April). *You don't get to tell me about sad: Swiftian Saudade in Taylor Swift's lyrics.* CGSA Conference, West Lafayette, IN, USA.
- **Bitsikokos**, L. (2024, May 30). *Living in the Hub: A Platform Study of Desire Semantics.* 9th UChicago Interdisciplinary MA Research Conference, Chicago, IL, USA.
- **Bitsikokos**, L. (2023, Nov 30). *Decoding Desire: Assessing Bias in Algorithmic Adult Video*

Recommendations. Computational Social Science Workshop, University of Chicago, Chicago, IL, USA.

- **Bitsikokos**, L., Papst, F., & Schueller, W. (2022, June 9–10). *Brief Analysis of the Rust Ecosystem.* CEU–CSH Meeting, Vienna, Austria.
- **Bitsikokos**, L., Iadarola, G., & Sabato, L. (2018). *Secondary electron emission models in e-cloud buildup simulations: from lab to the code.* ECLOUD'18, Isola d'Elba, Italy.

Poster Presentations

- **Bitsikokos**, L., & Stolzenberg, R. M. (2025, Sept). *The Citational Network Structure of U.S. District Court Documents.* Organizational Communication Mini Conference (OCMC), Urbana, IL, USA.
- Hossner, F., Bindas, A., Krisdianatha, A., Tarannum, A., Smrke, J., **Bitsikokos**, L., & Aversa, E. (2025). *The Algorithmic Mirror: Auditing TikTok Recommender Systems for Personalization, Protection, and Profiling.* Digital Methods Summer School 2025, Amsterdam, Netherlands.
- **Bitsikokos**, L., & Stolzenberg, R. M. (2025, June). *Mapping Justice: Data Collection on U.S. District Court Citational Networks.* NetSci, Maastricht, Netherlands.
- **Bitsikokos**, L., & Helbing, J. (2025, April). *Meaning Orthogonality in Embedding Spaces: A Geometric Approach.* Purdue CLA Research Showcase, West Lafayette, IN, USA.

Research in Progress

- **Bitsikokos**, L., & Helbing, J. (2025). *Meaning Orthogonality in Embedding Spaces: A Geometric Approach.* [Manuscript in preparation].
- Akom, M., Sawyer, H., **Bitsikokos**, L., Reed, A. L., Ojike, F. C., Ofori Boateng, P., Nwoko, O. B., Mohammed, I., & Lee, S. (2025). *Welcome Aboard: Simulating an Outsider-Within's Organizational Assimilation and Socialization through Role-Play.* [Manuscript in preparation].
- **Bitsikokos**, L., & Stolzenberg, R. M. (2025). *Mapping Justice: A Social Network Analysis of U.S. District Court Citations.* [Manuscript in preparation].

Project Reports

- Hossner, F., Bindas, A., Krisdianatha, A., Tarannum, A., Smrke, J., **Bitsikokos**, L., & Aversa, E. (2025). *The Algorithmic Mirror: Auditing TikTok Recommender Systems for Personalization, Protection, and Profiling.* Digital Methods Initiative. digitalmethods.net.

Research Experience

Aug 2024–	**Data Scientist**	*West Lafayette, IN*

Brian Lamb School of Communication, Purdue University
Assisting Prof. Jeremy Foote and Prof. Deepak Kumar (UCSD) with data analysis for the Toxic Talk Project, assessing the efficacy of AI agents in reducing toxic discourse online.

Sept 2023– Jun 2024	**Graduate Research Assistant**	*Chicago, IL*

Division of the Social Sciences, University of Chicago
Assisted Prof. Ross Stolzenberg on mechanisms of power/authority in U.S. district court judiciary via citational links; collected and pre-processed court decisions; conducted network analysis using Python, Gephi, and legal citation tools.

Sept 2023– Jun 2024	**Graduate Research Assistant**	*Chicago, IL*

University of Chicago
Assisted Prof. Jean Clipperton with data collection, record linkage, and sentiment analysis of Taylor Swift lyrics; provided administrative website support; supported literature review, research design, and methodology on an agent-based modeling project on housing inequality.

Mar 2023– Sept 2023	**Graduate Research Assistant**	*Chicago, IL*

Environmental Neuroscience Lab, University of Chicago
Project: contagion of emotional sentiment in urban environments. Built large-scale computing model of sentiment contagion using a Big Data Postgres database of geolocated tweets; worked in Python (NumPy, pandas, requests, matplotlib, seaborn, bs4, psycopg2).

Jun 2022–Jul 2022	**Visiting Student Intern / Researcher**	*Vienna, Austria*

Complexity Science Hub Vienna
Project: complexity in open-source software ecosystems. Supported GitHub data acquisition repository for the Rust ecosystem; investigated impact of weekly newsletter featuring a Rust repository on social network metrics (stars, forks, downloads).

Sept 2021– Feb 2022	**Graduate Researcher (Master's Thesis)**	*Athens, Greece*

National Technical University of Athens
Examined user influence in online social networks (Twitter); performed literature review; analyzed open datasets with Twitter-specific and traditional centrality measures; PageRank-based algorithms; Python (NetworkX, NumPy, pandas, matplotlib, seaborn); conducted correlation studies; authored 100+ page thesis manuscript.

Sept 2017– Sept 2018	**Researcher / Technical Student**	*Geneva, Switzerland*

European Organization for Nuclear Research (CERN)
Studied electron cloud phenomena for the Large Hadron Collider using PyECLOUD; collaborated with BE-Hadron Synchrotron Collective Effects, Electron Cloud, & Heat Load Task Force; presented weekly progress; participated in trainings and workshops.

Teaching Experience

Spring 2024	**Teaching Assistant** University of Chicago Social Network Analysis (Prof. Sabrina Nardin): developed materials, graded assignments, advised students, and provided support.	*Chicago, IL*
Fall 2023	**Teaching Assistant** University of Chicago Foundations for Statistical Theory (Prof. Yanyan Sheng): graded assignments and supported students.	*Chicago, IL*
Fall 2023	**Teaching Assistant** University of Chicago Computing for the Social Sciences (Prof. Sabrina Nardin): graded assignments and supported students.	*Chicago, IL*
Aug 2023	**Teaching Assistant** University of Chicago Computational Math Camp (Prof. Jean Clipperton): graded assignments, advised students, and provided support.	*Chicago, IL*
Jun 2023	**Teaching Assistant** University of Chicago Computing for the Social Sciences (Prof. Jean Clipperton): graded assignments, advised students, and provided support.	*Chicago, IL*
Sept 2018– Sept 2019	**Physics & Math Instructor** Two Pi Rho Tutoring / Self-Employed Taught physics, math, and calculus to a group of ten high school students.	*Athens, Greece*

Awards, Fellowships & Scholarships

- PROMISE Award $1000 for 2024–2025
- College of Liberal Arts Dean's Graduate Fellowship for 2024–2030
- Onassis Foundation Scholarship for 2024–2027
- University of Chicago Tuition Scholarship for 2023–2024
- Onassis Foundation Scholarship for 2023–2024
- International House Fellowship for 2023–2024
- Phoenix Research Scholarship for 2022–2023
- Social Sciences Opportunity Scholarship for 2022–2023
- MA Program Research Scholarship for 2022–2023
- Limmat Stiftung Award (4th out of 93 students) for 2018–2019

Additional Training

- Community Data Science Annual Meeting 2025, University of Washington, Seattle, USA (Oct 2025)
- Purdue Modern Fiction Studies Conference on Artificial Intelligence, Purdue University, West

Lafayette, USA (Sept 2025)
- Digital Methods Initiative Summer School — Social media at a crossroads and AI platform sensitivity, University of Amsterdam, Netherlands (Jul 2025)
- *The AI Con: How to Fight Big Tech's Hype and Create the Future We Want* workshop and talk by Dr. Alex Hanna, West Lafayette, IN, USA (Apr 2025)
- Systems and Disruptions Purdue Undergraduate Philosophy Conference, West Lafayette, IN, USA (Mar 2025)
- Organizational Communication Mini Conference (OCMC), Evanston, IL, USA (Sept 2024)
- Frontiers in Online Community Research Symposium, Purdue University, West Lafayette, IN, USA (Sept 2024)
- Political Theory Summer School, Institute for the Radical Imagination, Kasos, Greece (Jul 2022)
- Extra-terrestrial Ethnographies of the Future-Present, SNF Public Humanities Initiative, Athens, Greece (Nov 2020)
- CERN Inverted School of Computing, Geneva, Switzerland (Mar 2018)
- Joint Universities Accelerator School (JUAS), Archamps, France (Jan 2018)
- Education in the Era of Information Technology, Neos Pedagogos, Athens, Greece (Nov 2015)

Languages

- Greek (Native)
- English (Fluent)
- German (Intermediate)
- French (Basic)

Research Interests & Skills

Research Interests: Computational Social Science; Digital Humanities; Critical AI Studies; Platform Studies; Algorithms and Society; Algorithmic Bias; Media and Society; Semiotics; Organizational Communication; Theory.

Skills: Quantitative & Computational Methods; Computational Grounded Theory; Computational Text Analysis (Embeddings, Topic Modelling, Networks); Data Collection; Statistical Analysis; Social Network Analysis; Programming; Software Engineering; Database Engineering; Project Management; Data Cleaning; Visualization; Record Linkage; Large-scale computing (AWS); Writing; Literature Reviews.

Technical: Python; R; Java; Mathematica; FORTRAN; MATLAB; LaTeX; Git; SQL; Minitab; Office 365; Jira; Unix.

Creative Pursuits: Jazz saxophone (intermediate); poetry; zines.

References

Available upon request.