Jason Chatzitheodorou

Contact

Email: chatzitheodorou99@gmail.com
Links:

Education

Columbia University, New York, USA — 2023 - Present
PhD in Operations Research
Advisor: Eric Balkanski

National Technical University of Athens (NTUA), Athens, Greece — 2017 - 2023
BSc & MSc in Electrical and Computer Engineering
Grade: 9.28/10 (best 5%)
Thesis: Online learning augmented algorithms for facility location problems
Advisor: Dimitris Fotakis

Research Interests

I am interested in designing robust machine learning algorithms for decision-making under uncertainty. Specifically, my work on online clustering aims to produce stable clusters under evolving data. Another direction I have worked on is leveraging ML predictions to improve the performance of online algorithms for facility location, while also maintaining robustness in the case of biased predictions. More recently, I am working on the detection of anomalies from real-time cybersecurity logs, focusing on quickly handling a sheer volume of logs and their temporal correlations. The problems I am interested in are clustering, matching and submodular maximization.

Programming Skills

Programming Languages (Excellent):	Python, C++
Programming Languages (Familiar with):	C, SQL, SML, Prolog
Tools (Familiar with):	scikit-learn, cvxpy, Gurobi, Cuda, OpenMPI

Work In Progress

Anomaly Detection in Cybersecurity Logs
with Eric Balkanski, Hyrum Anderson, Cherlin Zhu

Average-Case Analysis of Greedy for MaxCover
with Eric Balkanski, Flore Sentenac

Online Metric Matching with General Arrivals
with Eric Balkanski, Vasilis Gkatzelis, Josh Ascher

Publications

Cost-Free Fairness in Online Correlation Clustering
ALT 2025 (International Conference on Algorithmic Learning Theory) talk
with Eric Balkanski, Andreas Maggiori

Projects

Llama Compiler
Implementation of compiler for functional language Llama (like OCaml) written in C++

Llama Syntax Highlighting
Implementation of a VS Code extension that does syntax highlighting for language Llama

AVR Navigation System
Wireless navigation system for devices with limited resources written in C

AWARDS

Benjamin Miller Fellowship 2023
Awarded by Columbia University for the 2023 Fall Semester

Great Moment of Education 2017
Awarded by Eurobank for highest grade in high school in the national exams in Greece

RELEVANT COURSEWORK

Columbia: Optimization I & II, Scheduling Algorithms, Analysis of Algorithms in OR

NTUA: Neural Networks and Intelligent Systems, Artificial Intelligence, Compilers, Advanced Algorithms

TEACHING ASSISTANT

Columbia: Foundations of Optimization (Fall 2024, Fall 2025), Probability for Engineers (Spring 2024)

LANGUAGES

Greek (native), English (C2)