DAVID CHEIKHI

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EDUCATION

Graduate School of Business, Columbia University, New York, NY Sep 2021 - Current
PhD Candidate in the Decisions, Risk and Operations (DRO) division, adivsed by Prof. Dan Russo.

Columbia University, New York, NY Sep 2019 - Dec 2020
Master of Science in Computer Science - Machine Learning Track
Dynamic programming, Reinforcement Learning, Machine Learning Theory, Optimization

Ecole polytechnique, Paris, FR Sep 2016 - Jul 2019
- Master of Science in Applied Maths and Computer Science - Operations Research Track
  Operations Research, Mathematical Programming, Randomized Algorithms
- Bachelor of Science in Applied Maths and Computer Science
  Probability, Statistics, Stochastic Processes, Algorithm Design, Complexity Theory

Lycée Henri Poincaré, Nancy, FR Sep 2014 - Jun 2016
Competitive undergraduate program in mathematics, physics and computer science
Algebra, Differential calculus, Discrete Probability

RESEARCH INTEREST

My interests broadly span decision making under uncertainty with a focus on sequential decision making such as reinforcement learning, optimization under bandits feedback and policy evaluation.

REFEREED CONFERENCES PAPERS

Stochastic Flows and Geometric Optimization on the Orthogonal Group, ICML 2020
with K. Choromanski, J. Davis, V. Likhosherstov, A. Nazaret, A. Bahamou, X. Song, M. Akarte, J. Parker-Holder, J. Bergquist, Y. Gao, A. Pacchiano, T. Sarlos, A. Weller, V. Sindhwani

WORKING PAPERS

On the statistical benefit of Temporal Difference Learning,
with Prof. Daniel Russo

WORK EXPERIENCE

Google, Paris, FR May 2020 - Oct 2020
Research Software Engineer Intern - Operations Research
- Built a dataset and a model predicting the latency of the Vehicle Routing solver *C++, Python*
- Enabled a better scheduling of instances
- Lead to a better understanding of how features impact the solve time

Google, Paris, FR Apr 2019 - Aug 2019
Software Engineer Intern - Operations Research
- Designed an algorithm to split large constrained Vehicle Routing problem instances *C++*
- Enabled to solve significantly larger instances by splitting them first

Google, London, UK — Jun 2018 - Aug 2018
Site Reliability Intern

- Creation of a pipeline to get data from the servers — *GoLang*
- Calibration of models to compute a unite of measurement of hardware performance — *Python*

AWARDS

TA Fellowship, Columbia University, Computer Science Department — Fall 2020

Bronze medal, SWERC (South Western European) ACM ICPC — 2018,2019

Silver medal, International Mathematics Competition (IMC) — 2017

Bronze medal, International Olympiads in Informatics (IOI) — 2014

TEACHING EXPERIENCE

Columbia Business School, Columbia University, New York, NY — Oct 2020 - Dec 2020

- TA: Foundations of Statistical Modeling (PhD core), *Spring 2023*
- TA: Managerial Statistics (MBA core), *Fall 2022*
- TA: Sports Analytics (MBA elective), *Summer 2022, Fall 2022*

SEAS School of Engineering, Columbia University, New York, NY

- Teaching Assistant: Analysis of Algorithm, *Fall 2020*
- Teaching Assistant: Randomized Algorithms, *Fall 2019*

Science Ouverte (Open Science), Drancy, FR — Sep 2016 - Apr 2017
Intern

- Science Ouverte is an association which promotes science in high priority education area
- Teaching science to primary school, middle school, high school and undergraduate students
- Creation and animation of science popularization activities

France-IOI, Paris, FR — Sep 2016 - Present
Volunteer coach

- Volunteer coach in algorithmic boot camp for high school students