

J.P. Morgan Chase

New York City, NY

*Quantitative Research, Vice President**Feb 2023 – present*

- *Quantitative Research, Associate*

Aug 2019 – Jan 2023

- *Quantitative Research, Summer Intern*

May 2018 – Aug 2018

- **Commodities – Energy Desk Quant.** Developed the first exact optimization solver in the Firm for Gas Storage contracts, that has practically feasible running time, achieves 8% PnL gain, and enables broader contract features. Developed Gas Transport optimizer to automate flow distribution. Extended and enhanced multi-factor Stochastic and Local Vol models for Oil, Natural Gas, and Power. Developed Natural Gas Demand forecasting using SARIMAX model and optimal inventory. Collaborated with desk on Gas Contract spreads trading strategies. Enhanced illiquid asset modeling. Performed models recalibration, tuning, and review.
- **Analytics and HPC.** FX Models optimization, GPU / high-performance C++ implementations. Multi-correlation and jump model development on GPU for FX. Core interfaces design.

Texas A&M University

College Station, TX

- *Research and Teaching Assistant*

Sep 2014 – May 2019

- **Research Assistant - Network Optimization:** Graph clustering and partitioning. Finding large cohesive subgraphs. Integer Programming modeling.
- **Teaching Assistant - Simulation methods & applications.**

University of Florida

Shalimar, FL

- *REEF OPS Researcher*

May 2016 – Aug 2016

- Analyzed AFLOW materials database from the graph theory perspective with over 3 million compounds.

Ahrefs Pte. Ltd.

Kyiv, Ukraine

- *Backend developer (part-time)*

Nov 2011 – Jul 2014

- **Data Server:** Created and maintained the high load API server for the custom key-value distributed Petabyte scale storage. Written in OCaml.
- **Server administration:** Provided comprehensive backend support, managed the cluster with 100 nodes, 45 TFLOPS, over 3 PB storage as a distributed file system.

EDUCATION

CFA Institute

- *Chartered Financial Analyst*

*Nov 2022***Texas A&M University**

College Station, TX

- *PhD in Industrial Engineering (Operations Research); GPA: 4.00 out of 4.*

Sep 2014 – Aug 2019

- **Research:** Graph Algorithms, Combinatorial Optimization, Non-differentiable Optimization.

Institute for Applied System Analysis, National Technical University of Ukraine “KPI”

Kyiv, Ukraine

- *Bachelor of Science in System Analysis with Honors*

*Sep 2010 – Jun 2014*SKILLS

- Commodity Markets, Natural Gas, Oil, Power. Multi-factor Stochastic Models. Forecasting, Time Series, SARIMAX.
- Graph Algorithms, Non-differentiable Optimization, Integer Programming, Stochastic Calculus, Functional Analysis.
- Distributed Systems, Big Data, Petabyte Scale Distributed Storage, Mapreduce, Microservices.
- Parallel Computing, Key-Value Databases, Server Administration, Machine Learning, Functional Programming.

PROGRAMMING SKILLS

- **Languages (proficient):** C++, Python, OCaml **Technologies:** Octave, Matlab; CPLEX, Gurobi; NumPy/Pandas
- **Languages (familiar):** Java, SQL, bash, L^AT_EX MPI, Linux, git, Tableau, vim, Excel, REST APIs

HONORS & AWARDS

- **ICS Harvey J. Greenberg Research Award 2021** Most outstanding contribution in OR/MS/Analytics by INFORMS Computing Society.
- **The President of Ukraine Scholarship 2010** Awarded for excellence in studying and taking top places in student math competitions (Olympiads).
- **Winner of the All-Ukraine contest-defense of scientific and research projects of student members** Awarded for a project for finding Fermat point in GIS and for excellence in Computer Science/Math.

HOBBIES & INTERESTS

- Private Pilot, Musical Instruments, Go (Baduk)