

Ariella Fuzaylov, Associate

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PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Cambridge, MA. *Associate*, January 2024 – Present.

- Consults on energy-sector issues such as renewable resource penetration, energy efficiency, and building decarbonization with a focus on quantitative modeling methods.
- Monitors capacity auction reform, load forecasting, day-ahead and real-time energy market issues in ongoing representation of consumer advocates and energy efficiency clients within the New England Power Pool (NEPOOL), as well as projects in other wholesale markets.
- Supports the development of comments, testimony, and reports related to renewable energy portfolios, renewable resource penetration, and industrial building decarbonization.
- Maintains online dashboards, in-house modeling tools, and databases.

Synapse Energy Economics and Climable, Cambridge, MA. *Energy Workforce Diversification Intern*, September 2023 – December 2023.

- Wrote report about decarbonization strategies for difficult to decarbonize commercial buildings in Boston according to BERDO regulations.
- Analyzed building use specific hurdles to decarbonization and conducted research on solutions tailored to Boston building stock and climate.

SSENSE, Montreal, QC. *Data Engineer*, May 2021 – November 2022.

- Managed a smooth data transition during a website framework migration and achieved zero database downtime by investigating downstream effects of the transition and coordinating the necessary code updates with all involved teams.
- Built, developed, and maintained ETL (Extract, Transform, Load) processes to extract data from various sources, transformed data into a standardized format, and loaded it into the self-service data lake.
- Created and maintained databases for a variety of business, payroll, and internal purposes from clickstream and batch data.

Prometheus Lab at McGill University, Montreal, QC. *Research Assistant*, January 2021- May 2021.

- Researched and developed a modern recipe sharing web application with a focus on how food creates community resulting in a prototype and a supporting report.
- Collected and analyzed user survey data using statistical and qualitative techniques including dimensionality reduction.

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- Compiled results from data analysis and existing product research to inform my proposed design changes.

JetBrains Inc., Boston, MA. *Software Engineer Intern*, September 2020 – December 2020.

- Researched and developed an improved code auto-completion algorithm that more efficiently searches through possible alpha-numeric strings using finite-state machine concepts.

Energy Federation Inc., Westborough, MA. *Software Engineering Intern*, June 2019 – August 2019.

- Shortened consultant on-boarding time by four weeks by creating a data dictionary for the production database and supporting documentation.
- Fixed discrepancies between six figure client invoices and internal reports by analyzing and modifying MySQL queries to reflect differences in reported data.

Spruhan Engineering P.C. and Peter Nolan & Associates LLC, Newton, MA. *Surveying Assistant*, June 2018 – August 2018

- Created CAD models of properties by collecting and synthesizing geographic survey data.
- Determined if new construction conformed to city land usage and zoning laws based on my survey and CAD model.

EDUCATION

McGill University, Montreal, QC

Bachelor of Science in Computer Science and Statistics, 2023

SKILLS

EnCompass, ESIST, Python, R, Excel, SQL, Airflow, AWS, Azure, ETL Orchestration

PUBLICATIONS

Shenstone-Harris, S., M. Whited, K. Takahashi, S. Schadler, A. Fuzaylov, I. Weiss. 2025. *How Will Future Electric Vehicle Adoption and Building Electrification Affect Electric Rates?* New Jersey Factsheet. Synapse Energy Economics for Natural Resources Defense Council.

Shenstone-Harris, S., M. Whited, K. Takahashi, S. Schadler, A. Fuzaylov, I. Weiss. 2025. *How Will Future Electric Vehicle Adoption and Building Electrification Affect Electric Rates?* New Mexico Factsheet. Synapse Energy Economics for Natural Resources Defense Council.

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