

ALEXANDER EL-HAJJ

☎ mobile: (613)-983-8656
✉ direct: alex.elhajj88@gmail.com
🐙 github: a-elhajj
🌐 website: a-elhajj.github.io

Experience

- Jan 2021–Present **Statistics Canada, Analyst, Ottawa, ON**
Devised strategies to improve the production time of the Longitudinal and International Study of Adults (LISA) survey
Coordinated with internal partners to fulfil processing data files for the release of LISA
Presented analytical workshops to Employment and Social Development Canada (ESDC)
Lead dialogues with internal partners during weekly meetings
Assumed a supervisory role when management was away
- Jan 2020–Jan 2021 **Statistics Canada, Data Scientist, Ottawa, ON**
Supported multiple intergovernmental agencies, including Health Canada and the Public Health Agency of Canada by assisting in developing predictive and learning models as well as building actionable real-time dashboards and visualizations to inform all stakeholders
Designated Elastic Stack administrator and specialist
- Jan 2019–Jan 2020 **Statistics Canada, Recruit Analyst, Ottawa, ON**
Lead researcher for two publications on food insecurity: 1) a validation report; and 2) a research paper exploring the association between food insecurity and stressful life events
Developed a text classification model that classifies interviewer responses to North American Industry Classification System codes
Translated 3000+ lines of STATA code to SAS to provide preferences for researchers
- Sept 2018–Jan 2019 **Statistics Canada, Analyst, Ottawa, ON**
Created automated programs (e.g., anomaly detector) to increase survey process efficiency
Used text mining to collect vital information from interviewer notes and remarks
- Jun 2018–Aug 2018 **Statistics Canada, Survey Development and Dissemination Analyst, Ottawa, ON**
Conducted custom data tabulations and analysis for clients requesting cost recovery
- Jul 2016–Aug 2017 **Department of National Defence, Records Management Clerk, Ottawa, ON**
Created, updated and modified Excel spreadsheets while analyzing for errors
Maintained files precisely and professionally

Academic Credentials

- Nov 2021–June 2022 **COMP 372 - Design & Analysis-Algorithms, Athabasca University, Remote**
Learning the fundamental techniques for designing and analyzing algorithms
- 2013–2018 **Bachelor of Economics Hons, Carleton University, Ottawa**
Minor: Statistics
Dean's Honour List 2017-2018
Graduation Date: August 2018
Honours Paper: "The Impact of Substance Abuse in Tennessee: The Relationship between Low Birth Weight and Substance Use During Pregnancy"
Excelled in statistics and data science coursework
Completed a senior project that predicted heart disease using various machine learning algorithms, including Random Forest and Support Vector Machine

Research Interests

Deep learning, reinforcement learning, generative adversarial networks (GANs), natural language processing, food insecurity, and education and quality of life

Papers in Statistics Canada Journals

- March 10, 2021 El-Hajj, A., Benhin, E. (2021). The association between stressful life events and food insecurity. *Longitudinal and International Study of Adults Research Paper Series*. <https://www150.statcan.gc.ca/n1/en/catalogue/89-648-X2021001>
- November 2, 2020 El-Hajj, A., Benhin, E. (2020). Validation of the Food Security Module in the 2018 Longitudinal and International Study of Adults. *Longitudinal and International Study of Adults Research Paper Series*. <https://www150.statcan.gc.ca/n1/pub/89-648-x/89-648-x2020004-eng.htm>

Published News Bulletins

- March 10, 2020 Statistics Canada. 2021. Study: Association between food insecurity and stressful life events among Canadian adults. The Daily. March 10. Statistics Canada catalogue no. 11-001-X. <https://www150.statcan.gc.ca/n1/daily-quotidien/210310/dq210310d-eng.htm>

Book Chapters

- February 2022 Denis, N., El-Hajj, A., Drummond, B., Abiza, Y., & Gopaluni, K. C. (2022). Learning COVID-19 Mitigation Strategies Using Reinforcement Learning. *In Mathematics of Public Health* (pp. 251-271). Springer, Cham.

Conferences

- March 22 – 24, 2022 International PIAAC Research Conference 2022
“Trends in skills use and employment income over time”

Technical Skill

- Academic coursework Statistics, operations research, experimental design, data mining and machine learning, econometrics, measurement economics, and sampling methodology
- Personal coursework Apache Spark (TM) SQL for Data Analysts (Coursera, 2021), Sequence Models (Coursera, 2020), Machine Learning A-Z (Udemy, 2019), and Deep Learning A-Z (Udemy, 2018), and Neural Networks for Machine Learning From Scratch (Udemy, 2018)

Computing

- Proficient Python, SAS, STATA, R, SQL, Julia, Elastic Stack, painless, Vega, Vega-Lite, Git, Docker, Amazon Web Services, Microsoft Azure, IBM Cloud
- Basic Power BI, SPSS, Matlab, Octave, jq, GGobi, Kubernetes, HTML, CSS, C++, C, Rust, bash, shell

Leadership Positions

- Jan 2020–Present **Steering Committee Member, Machine Learning Community of Practice, Statistics Canada, Ottawa**
Organize and facilitate events such as presentations or challenges on an array of machine learning topics

- May 2021–Jan 2022 **Organizer, Internal Reading Group, *Statistics Canada, Ottawa***
Assist with deciding on a research paper to deliberate while also leading discussions on the corresponding research paper
- Sept 2018–Apr 2020 **Founder and Organizer, Kaggle Competitive Group, *Statistics Canada, Ottawa***
Lead a team of colleagues to compete in upcoming Kaggle.com data science competitions
- July 2018 **Captain, Imputation Hackathon, *Statistics Canada, Ottawa***
Tasked to design and create a more precise and efficient method for imputing T2 tax data
Facilitated and organized a team of 8 colleagues to complete a final product in three days
- 2015–2017 **Vice President, Help Everyone Live Prosperously, *Carleton University, Ottawa***
Coordinated philanthropic fundraising events and managed an organization of 10 members

Volunteer Experience

- 2015–2018 Statistics Tutor, Salvation Army, Carleton Foot Patrol, and Relay for Life
- 2012–2015 Wax Off for Cancer, Ottawa Food Bank, Canadian Foundation for AIDS Research, Scotiabank AIDS Walk, Bi-annual Mooney's Bay Cleanup, and Carleton Disability Awareness Center

Other

- Sept 2018–Present **Member, R/Python Users & Machine Learning Community of Practice, *Statistics Canada***
- Apr 2020-Jan 2021 **Member, Public Health Agency of Canada External Modelling Experts Group (COVID)**
- 2016–Present **Security Clearance: Government of Canada Reliability Status**

ALEX.ELHAJJ88@GMAIL.COM

613-983-8656

A-ELHAJJ

A-ELHAJJ.GITHUB.IO