

EDUCATION

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|----------------------------------------------------------------|----------------|
| Wellesley College                                              | Wellesley, MA  |
| B.A. in Data Science and English                               |                |
| Vrije Universiteit Amsterdam                                   | Amsterdam, NL  |
| Semester in Amsterdam Study Away Program                       |                |
| Coursework in Computer Science, Literature, and Dutch Language |                |
| University of Vermont                                          | Burlington, VT |
| Completed first-year coursework                                |                |
| Presidential Scholarship, Dean's List all semesters            |                |

PUBLICATIONS & PRESENTATIONS

Kyrouz, A., Liu, L., Qin, L., & Tjaden, B. (2025). "Popcorn: prediction of short coding and noncoding genomic sequences in prokaryotes", *Bioinformatics*, 41(5), <https://doi.org/10.1093/bioinformatics/btaf250>

Kyrouz, A. (2025, Apr. 16). 'Can I Chamomile?': Modern Lyric Poetry and the Environment, [Presentation of independent study]. Ruhlman Conference 2025, Wellesley College, Wellesley, MA, United States.

SKILLS

**Programming:** Python (Pandas, scikit-learn, NumPy, PyTorch, Jupyter), CSS, SQL, R/RStudio (Tidyverse, Shiny, Leaflet), Java, LaTeX, HTML

**Statistical/Computational:** statistical inference (frequentist and Bayesian), natural language processing, machine learning, predictive modeling, data visualization, data preprocessing

**Computing:** Git/Github, Anaconda, Jupyter, VSCode, Linux/Unix, Google Workspace, Microsoft Office Suite

**Language:** Spanish (working proficiency), Arabic (elementary proficiency), Dutch (elementary proficiency)

RESEARCH EXPERIENCE

|                                                                                                                                                                                                       |                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| New England Flying Squirrel Network                                                                                                                                                                   | Beverly, MA            |
| Data Analyst                                                                                                                                                                                          | June 2025 - Present    |
| ★ Cleaned, integrated, and analyzed longitudinal data collected from 30 local nestboxes, as well as over 50 boxes maintained by citizen science volunteers, and crowdsourced data from iNaturalist    |                        |
| ★ Developed regression models in R to quantify relationships between environmental features and species presence                                                                                      |                        |
| ★ Applied Bayesian statistical methods to estimate ecological relationships and compare models                                                                                                        |                        |
| Wellesley College Department of Computer Science                                                                                                                                                      | Wellesley, MA          |
| Undergraduate Research Assistant                                                                                                                                                                      | Sept. 2024 - Feb. 2025 |
| ★ Developed Python-based, end-to-end machine learning pipeline for analysis of genomic sequence data and classification of short coding and noncoding ORFs                                            |                        |
| ★ Implemented reproducible preprocessing, feature engineering, feature scaling, model training, and standardized evaluation metric workflows for logistic regression and multilayer perceptron models |                        |
| ★ Contributed to publication in <i>Bioinformatics</i>                                                                                                                                                 |                        |
| Capstone Project in Data Science                                                                                                                                                                      | Wellesley, MA          |
|                                                                                                                                                                                                       | Sept. 2024 - Dec. 2024 |
| ★ Built end-to-end Python-based pipeline to model urban bike-sharing operations using historical trip and station data                                                                                |                        |
| ★ Engineered features and simulated station inventory dynamics to model supply-demand behavior across network                                                                                         |                        |
| ★ Trained and evaluated linear regression models to predict membership usage and bike availability                                                                                                    |                        |

PROFESSIONAL EXPERIENCE

|                                                                                                                                                                                           |                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Beverly Public Schools                                                                                                                                                                    | Beverly, MA           |
| Substitute Teacher                                                                                                                                                                        | Feb. 2026 - June 2026 |
| ★ Adapted quickly to new classroom environments while communicating complex concepts to diverse audiences and managing competing priorities                                               |                       |
| ★ Worked extensively in a specialized classroom supporting students with high support needs related to autism                                                                             |                       |
| Office of International Study                                                                                                                                                             | Wellesley, MA         |
| Student Ambassador                                                                                                                                                                        | June 2024 - May 2025  |
| ★ Created Leaflet and Shiny graphics in R to communicate trends in 20 years of student data                                                                                               |                       |
| ★ Presented analytical findings and program information to diverse stakeholders through advising and presentations                                                                        |                       |
| New Student Orientation                                                                                                                                                                   | Wellesley, MA         |
| Orientation Mentor (Fall '24), Coordinator (Spring '25)                                                                                                                                   | June 2024 - May 2025  |
| ★ Managed and facilitated full lifespan of orientation programming for domestic and international exchange students, beginning remotely months before attendance through start of classes |                       |