ALEX FRIEDRICHSEN

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OBJECTIVE

I'm always looking for new and challenging situations to learn, receive constructive feedback, and continue improving myself. I wish to help others achieve their pursuits while being a positive, organized, integral part of a team and to further develop my own toolset of coding skills in Python, data visualization, and communication.

EDUCATION

University of Vermont, Burlington, Vermont   Anticipated M.S. Graduation May 2023
Accelerated M.S. Data Science and Complex Systems
B.S. Data Science, GPA 3.59   Anticipated B.S. Graduation May 2022
Minors: Economics, Mathematics, Computer Science, Statistics

- **Honor's College Thesis:** Thesis research with UVMxGoogle OCEAN project: How teams thrive using open-source software and in technology-rich environments. Reviewing relevant team dynamics and OSS literature through an in-depth literature review with over 100 summarized sources. Using Google BigQuery to access the 2020 snapshot of all GitHub repositories and write queries selecting tables based on filtering the payload field. Citation network analysis of links between papers and repositories.
- **Notable Coursework**: Principles of Complex Systems, Modeling Complex Systems, Data Structures & Algorithms, Data Science I, Advanced Programming, Chaos Theory, Linear Algebra, Calculus I-III, Statistical Methods II, Game Theory.
- **Projects**: Cleaned data from 50000+ poker hand-histories, engineered data in pandas, built random forest/linear/logistic regression models and drew conclusions that improved my home game profits, coded an "8-bitifier" in C++ using OpenGL for .jpg, coded a playlist organizing system with data from Last.fm, created a new randomization algorithm, deepfake spread agent-based modeling using Mesa, vaccine hesitancy sentiment shift and allotaxonograph analysis, Arcane: top down RPG through Unity Engine.
- **Programming Languages**: Experience in Python (Pandas, NumPy, SciPy, Mesa, Scikit-learn, matplotlib, Jupiter/Collab, Plotly), C++, R (ggplot2, dplyr, knitr, Markdown), SQL (MySql, BigQuery), and SAS
- **Skills**: LaTeX, principal component analysis, k-mean clustering, model discretization, cellular automata visualization, Windows, MS Word/Excel/PowerPoint/OneDrive/Outlook, Google Drive/Sheets/Calendar, Zotero citation manager, Slack/Discord/Zoom/Teams, Basic Spanish, Basic French
- **Jobs, Volunteer & Extracurriculars**:
    - Grading Assistant – Combinatorics, Data Science I: Graded assignments and provided feedback.
    - 1in4 - Publicity Coordinator: Manages club Instagram page, Flyers (Canva), and logo design. Books rooms for presentations and requests meeting speakers.
    - Computer Science Crew – Treasurer: Organizes meeting agendas and facilitates meetings, contacts and schedules presenters from Burlington companies, manages budget through student government association meetings. Tripled active members in club.

PROFESSIONAL EXPERIENCE

Vermont Department of Health, Burlington, Vermont   February 2019 – September 2021
Public Health Analyst I

    Abstracted data from death certificates, autopsies, medical examiner reports, police reports, and toxicology reports for the state unintentional drug overdose reporting system (SUDORS). Entered, cleaned, and checked SUDORS data for quality control inside the national violent death reporting system (NVDRS). Analyzed data and created data products (Unintentional Drowning Data Brief Link) for dissemination to key stakeholders. Worked in office and from home through Covid-19 self-supervising to meet project deadlines. Helped develop GIS REST services database using python.

The Boardroom Board Game Café, Burlington, Vermont   September 2021 – Present
Game Education & Server:

    Welcomes customers and suggests catered recommendations for games. Teaches guests games. Delivers food, manages register, and responsible for cleaning while opening and closing restaurant.

Projects:
Please refer to my portfolio website at **alexanderfriedrichsen.github.io**