Alex.P.Friedrichsen@gmail.com\* 802-922-8588 \* /in/Alex-Friedrichsen

## **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 *Accelerated M.S. Data Science and Complex Systems* **B.S. Data Science**, GPA 3.59

Anticipated M.S. Graduation May 2023

Anticipated B.S. Graduation May 2022

Minors: Economics, Mathematics

- 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.
- **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 Data Science I: Grades assignments and provides feedback to students.
  - o 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 (<u>Unintentional Drowning Data Brief Link</u>) 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.

## **HOBBIES & INTERESTS**

Rock Climbing, Running, Yoga, Piano, Guitar, Strategy Games, Pro Tour contender MTG, Reading, Foodie.