

# Ella Grady

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## EDUCATION

**Clark University** - Worcester, Massachusetts

**August 2020 – May 2024**

Bachelor of Arts in Computer Science and Political Science, summa cum laude

Awards: 2023 Grace Hopper Conference Scholarship Recipient, Pi Sigma Alpha National Political Science Honor Society

Member, Dean's List First Honors & Second Honors

**University of Stirling** - Stirling, Scotland

**September 2022 – May 2023**

Computer Science and Political Science Study Abroad Experience

## SKILLS

**Languages/Formats:** Python, Java, C, Scheme, R, SQL, JSON, XML, Bash/Shell, HTML, CSS, Javascript, NoSQL

**Operating Systems:** Microsoft Windows, Mac OS, Linux, Linux Cloud Environments

**Technologies:** Git, Jira, Docker, Postgres, Jenkins, AWS, Flask, Tableau, Confluence, Amazon Redshift, MongoDB, Wireshark

## PROFESSIONAL EXPERIENCE

**Software Engineer**

**August 2024 - Present**

United States Digital Corps, US Geological Survey & General Services Administration - Remote

- Supports the Water Mission Area of the United States Geological Survey as a full stack software engineer in the United States Digital Corps Fellowship at the General Services Administration
- Contribute to system modernization and upkeep of multi-agency-led water data projects used by researchers, scientists, water management groups, government officials, and politicians to inform water related decisions, including the [Water Quality Portal](#) (publishes 400M+ records from 1,000+ contributing groups) and [National Groundwater Monitoring Network](#) (publishes data from 20,000+ locations and ~40 agency providers), allowing users and the public to track and understand data surrounding their water resources.
- Manage millions of data records, data retrieval processes, data cleansing, and publishing of data in UI frameworks
- Assist and contribute to cloud deployment process for Ground Water project alongside rest of our small developer team
- Present regular demos of accomplished work
- Research, present, and lead learning & development sessions regularly as part of fellowship

**Data Technology Intern**

**June 2023 – August 2023**

Global Atlantic Financial Group - Boston, Massachusetts

- Built out Redshift data warehousing technologies' functionality through agile scrum development
- Documented program development in formal standards for future referencing on team's Confluence pages
- Collaborated with intern team to recommend business programs enhancing values of diversity, equity, inclusion

**Customer Satisfaction Process & Technology Intern**

**May 2022 – August 2022**

L.L. Bean - Freeport, Maine

- Analyzed customer sentiment for major e-commerce brand, collaboration with rest of Customer Experience team
- Recommended changes to current processes based on findings of data analysis
- Developed SQL scripts, Java data analytics processes, and documentation for long term utilization

**Computer Science Teaching Assistant**

**August 2021 – May 2022 | January 2024 - May 2024**

Clark University - Worcester, Massachusetts

- Facilitated student learning with coaching through material as a TA for Intro to CS (Python) and Data Structures (Java)
- Collaborated with faculty and 1-2 other TAs in classes and labs of 20-30 students, office hours of 10-20 students
- Monitored and replied to questions in online course forums

## LEADERSHIP EXPERIENCE

**Vice President of Clark Competitive Computing Club**

**August 2023 – May 2024**

Clark University - Worcester, Massachusetts

- Collaborated with 3 fellow leaders to hold events, manage our roster of 70+ students, recruit and promote as necessary, create agenda/curriculum for club events, workshops, discussions, and outreach, and overall build a community
- Co-facilitated leadership meetings on event planning and club management and club-wide events with president

- Championed, planned, and hosted several outreach events to encourage kids in Worcester to pursue CS, teaching coding through Lego robot education kits, workshops of 10-20 kids
- Planned, promoted, managed, and judged two 48-hour hackathon of 30-40 participants in Fall '23 & Spring '24
- Managed budget and spending,
- Wrote, presented, and managed applying for several Student Council funding grants
- Doubled annual budget from \$3,500 to \$7,000 through budget presentations, resulting from demonstrated work and recognized benefit to campus and student body

#### **Member of Political Science Department's DEI Working Group**

**March 2023 – May 2024**

Clark University - Worcester, Massachusetts

- Collaborated with ~10 others to ensure department fulfills outlined goals/values for diversity, equity, and inclusion
- Provided oversight to department and faculty in creating community that reflects our members within the department
- Worked closely with faculty to plan and host events for student engagement with the department, such as meet and greets and guest lectures

## **PROJECTS**

#### **The Reality of AI, US National Security, and Global Power Dynamics**

**January 2024 – May 2024**

- Conducted in-depth analysis of AI's implications on US national security, focusing on threats and mitigation strategies
- Collated research from academic journals, articles, and government documents, comparing theories and expert opinions
- Developed a case study on autonomous weapons, exploring their potential impact and policy responses
- Analyzed the current AI security landscape and proposed comprehensive policies to address emerging challenges

#### **Global Atlantic SQL Parser and Data Lineage Mapper**

**June 2023 – August 2023**

- Developed Python programs to parse SQL queries to single string and databases to dictionaries for financial data
- Designed logic and code mapping data lineage across AWS Redshift databases through data processing (Extract, Transform, and Load), producing end-to-end mapping, for tables with thousands of rows, 100s of columns from raw insertion to business standard formatting for long term utilization
- Loaded mappings to Redshift table, created a Tableau report for business users to access

#### **L.L.Bean Customer Experience in Shipping Analysis**

**July 2022 – August 2022**

- Developed SQL script to gather data related to order shipping information for FY 2021 and 2022, approximately 1.5M orders, comparing to internal delivery quote scores
- Analyzed numerical and customer sentiment data to determine customer's experience from time of order to arrival
- Recommended changes based on financial costs if package delivery quotes were changed and more arrived late

#### **International Organizations' Influence on Data Privacy Regulations**

**March 2022 – April 2022**

- Researched international organizations, including European Union, and Organization for Economic Cooperation and Development, to understand policies on data privacy and positions on protecting sensitive data
- Collated research from variety of academic journals, articles, and organizations' policies, comparing global policies
- Analyzed policies and drew conclusions on the importance of the role international organizations play in data privacy as the internet and technology become increasingly globalized

#### **Mask Wearers and Who They Voted For**

**December 2020**

- Designed Python program to create a graphical user interface window of each state in the United States
- Compared data from the 2020 presidential election and results of a New York Times study on mask wearing per state
- Created color-coded map of the nation based on the results of the election