FSU LIBRARIES

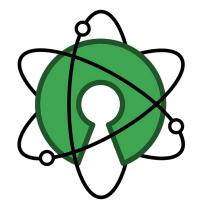
Developing Career-Ready Students via a Data Fellowship Program

Dr. Nick Ruhs Research Data Management Librarian



Overview

- Background
- Data fellowship program overview and focus areas
- Program structure
- Project Examples
- Observations
- Challenges
- Future Goals







Background

- Increasing demand for data science skills in the workforce
 - According to the U.S. Bureau of Labor Statistics, data science field will grow about 28% through 2026
- FSU investments in data skills
 - Interdisciplinary Data Science Master's program
 - o Digital Literacy requirement
- FSU Libraries already provides several research data services
 - Engaging w/undergraduates around good data practices is an area of potential growth







What is the Data Fellowship Program?

- Developed as part of an FSU Libraries Stategic Initiative proposal titled "Building a Community of STEM Data Scholars"
- Launched in Fall 2021
- Uses a peer-to-peer teaching, research support, and outreach model where student data fellows serve as data ambassadors and provide support to their peers (undergraduate & graduate students)
- Provides students with the opportunity to directly contribute to the library's research data services program
- Professional development opportunities prepare the data fellows for future careers in data-centric fields



Areas of Focus

Teaching & Instruction

Research Data Support

Outreach and Engagement

Professional Development







Program structure

- Program is funded through FSU Libraries
- Fellows receive on-boarding and orientation to FSU Libraries and our data services programs for approximately first 4 weeks of program
- Bi-weekly progress meetings with program coordinator
- Group meetings to foster a cohort among the fellows
- Example work week tasks for data fellows:
 - Staff Walk-Up (Office) Hours
 - Participate in workshop development and/or teaching
 - Individual project work
 - Collaborate on blog writing and/or outreach events





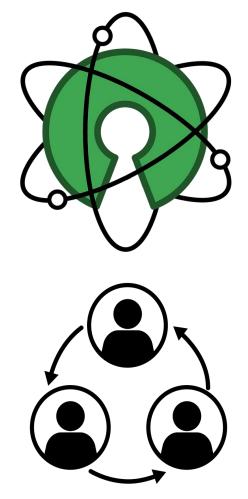
Initiatives & Projects

Data Workshops

Machine Learning Symposium

Love Data Week

Blog Posts & Social Media

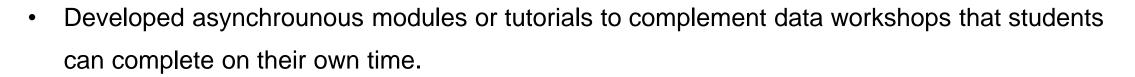


Created by Laymik from Noun Project



Data Workshops

- Data fellows have designed introductory workshops covering various data analysis & visualization topics or software
- Teach as part of the library's "Data @ Your Desk" workshop series
- Workshop topics:
 - 0 **R**
 - o SQL
 - o Git/GitHub
 - o Data Science







Machine Learning Symposium

- Title: Empowering Minds through Data Science and Machine Learning Symposium
- Library-wide symposium organized by one of the data fellows
- Collaboration between all data fellows, along with staff from the Libraries Marketing & Engagement teams
- Featured student researchers and a faculty keynote speaker doing work in the areas of machine learning, artificial intelligence, and data science
- A reception was held in order to facilitate networking and further conversation







Love Data Week

- Data Fellows partnered with the Engagement Librarian, the FSU Libraries Marketing team, and Research Data Management Librarian to develop a suite of activities and promotions for Love Data Week 2023 and 2024
- Promoted through:
 - Blog posts
 - Instagram Reels
- Activities included:
 - Tabling events w/games and prizes
 - Hot chocolate bar
 - Workshops





Blog Posts & Social Media

- Co-author blog posts for the FSU Libraries "Get Data Lit!" Blog, located on the FSU Libraries website
- Informational articles intended to introduce a general audience to trending data topics and promote data-related events at FSU Libraries
- Promoted on FSU Libraries website and social media
- Topics discussed have included: big data, data analysis, evaluating data, machine learning and artificial intelligence, data science, and Love Data Week
- Data Fellows also partnered with the FSU Libraries Marketing team to produce Instagram reels



Blog & Social Media Statistics

Blog Post Title	Views
What is Big Data anyway?	375
How do the Pros do data analysis?	290
Evaluating Data through a Critical and Ethical Lens	658
A Primer on Machine Learning and Artificial Intelligence	348
A short dive into data science	115
Love Data Week 2024	3300
A brief overview of large language models	329

Instagram Reel Topic	Views
Data @ Your Desk Spring 2024	1346
Love Data Week 2024	1663
Machine Learning Symposium	3485

The "Evaluating Data through a Critical and Ethical Lens" post was featured in ARL News. (January 27, 2023)





Observations

- Outreach conducted by the data fellows has contributed to increased student engagement with research data services and data topics
- Workshops and tutorials developed by the data fellows provide valuable teaching and speaking experience, and allows student attendees to learn from their peers
- Integrating the data fellows into the STEM team working environment allows them to gain skills in teamwork and office etiquette
- Collaboration with FSU Libraries faculty and staff allows data fellows to work across departmental boundaries
- Skills learned in the program have successfully positioned several data fellows for full-time job opportunities, graduate assistantships, and internships





Challenges

- Sustained, long-term funding for the program
- Time & capacity for the Data Fellows Coordinator to lead the program
- Scheduling meetings, working hours, and events around the data fellow's schedule
- Ensuring the data fellows have a dedicated space to work
- Some outreach strategies have been less fruitful
 - Engaging directly with Registered Student Organizations
 - Low engagement with Data "Walk-Up" hours





Future Goals

- Further classroom integration
 - Partner with departmental faculty to have the data fellows teach a session related to a specific tool or data topic
 - Develop workshops or instructional sessions on general data literacy for incoming students
- Collaborating with librarians outside of the STEM team on long-term data research projects
- Implement a peer-to-peer mentorship model
- Establish a data fellows "alumni" network





Thank you!

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 - Neelam Bharti, Associate Dean for Research & Learning Services
 - Gale Etschmaier, Dean of University Libraries



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