LIBRARY TECHNOLOGY CAREER

JUMPSTART PROGRAM

A Transformational Approach to Technical Skill-Building for LIS Students

CNI
Nov. 19, 2020

Tori Culler, NC State University Libraries Fellow (@tori_culler)
Kevin Beswick, Interim Associate Head, Digital Library Initiatives (@kbeswick)
**WHAT?** The Jumpstart Program was a free, immersive, week-long experience that helped to position first-year library school students for a career in library technology upon graduation.

**WHY?** Recruiting for technical positions in the Libraries is difficult. LIS students have different opportunities to build these skills, and we wanted to help fill the gap.

**WHO?** 8 participants, 5 planning committee members, and more than 2 dozen of our colleagues throughout the Libraries.

**WHEN?** Aug. 3rd-7th, 2020

**WHERE?** Zoom! (where else?)
Our Process

Environmental Scan
- July-August 2019

Forming a planning committee
- Early Fall 2019

Brainstorming our program vision & schedule
- Fall 2019 - on

Recruitment & Application process
- Nov. 2019 - April 2020

Pivot to online; finalizing program details
- Summer 2020

Program delivery
- Aug. 3-7th, 2020

Assessment, presenting, “What’s next?”

*You are here.*
Environmental Scan:

We spoke with...

- Libraries colleagues in different types of tech positions
- HR/Admin at other institutions
- Current students in LIS programs

How did you arrive in your current role? // What skills are important to your work? // How did you acquire them? // What do you look for in hiring for tech librarians? // What opportunities do you or did you have to learn tech skills in library school? // How would you have done things differently? // What type of opportunities do you wish existed?

Key Insights

- Library school curricula vary widely.
- In general, people in tech roles reported building their skillset via extra-curricular/supplemental experiences.
- Students want more opportunities to build their tech skills. They need a roadmap.

July/August 2019
Selecting & Forming the Planning Committee

Tori Culler
(she/her/hers)
NCSU Libraries Fellow

Kevin Beswick
(he/him/his)
Interim Associate Head, Digital Library Initiatives

Natalia Lopez
(she/her/hers)
Data & Visualization Librarian

Jennifer Garrett
(she/her/hers)
Director, Talent Management

Robin Davis
(she/her/hers)
User Experience Librarian

Early Fall 2019
The Library Technology Career Jumpstart Program seeks to...

- Increase awareness of **technology careers** in libraries
- **Increase diversity** (broadly defined) in this area of the profession
- Impart strategies for **learning technical skills**
- Provide concrete steps forward towards a **career pathway** in library technology
- Create a **welcoming and inclusive** space where a diverse cohort can learn from each other
- Foster a **community** of professional and interpersonal support
We seek applicants who share our Libraries’ strategic values that include Diversity, Access, Experimentation, Agility, Collaboration, and Delight. As you answer the short questions in this application, we encourage you to share how these values play a part in your experiences and professional goals. You may also want to review our Libraries’ Diversity & Inclusion Statement.

Nov 2019 - Apr. 2020
Questions Asked:

- Why are you interested in the Jumpstart program? What do you hope to gain from this experience? (150 words max)
- Tell us about a time when you solved a challenging problem. (150 words max)
- What are your professional goals? What would your ideal job entail? (150 words max)
- Please tell us about your commitment to diversity, equity, and inclusion. (150 words max)

Selection Criteria:

- a demonstrated interest in pursuing a career in library technology
- a commitment and willingness to learn technical skills
- a persistent and creative approach to solving problems

→ Complete application = online form + resume
→ 49 total applicants, 13 zoom interviews, 8 students selected
Meet the participants!

Sarah Casteel is a student at UNC Chapel Hill, where she is currently a Research Assistant in the Interactive Information Systems Lab. She has experience working in technology support positions and career aspirations in human-computer interaction and user experience.

Lauren Barrett is midway through the first year of her graduate program at UNCG, where she is interested in learning more about digital archives. Her background is in deaf education.

Hiva Kadivar currently works with UNC Chapel Hill Libraries with the Research and Instructional Services department. She is a second year graduate student at NCCU and a 2019-2021 ARL Kaleidoscope Diversity Program scholar, with career interests in digital scholarship, databases and digital assets management, and research interests in accessible and inclusive digital project design.

Jake Tompkins is an MLIS student at UCLA who specializes in informatics. He currently works at Young Research Library in the Digital Library Program where he helps with the International Digital Ephemera Project and the Sinai Manuscripts Digital Library. He has a background in applied math and career interests in digital humanities and user experience librarianship.
Meet the participants! (cont.)

Madina Grace is a student at the University of Illinois, Urbana-Champaign, with career interests in systems librarianship. She currently works as a graduate assistant in Scholarly Communication and Publishing at UIUC, and previously worked as an electronic resources librarian at Nazarbayev University Library in Kazakhstan.

Renee Lam is about to begin her graduate studies at San Jose State University and is interested in learning about taxonomy, metadata, and knowledge management. She is currently a data manager for Verizon Media.

Lillianna Cervantes is currently a staff member at the University of Wyoming Libraries, where she also assists with the UW sponsored program, the Wyoming Latina Youth Conference, to provide mentorship and STEM skills training to Latina youth grades 3-12. She is about to begin her graduate studies via the University of Tennessee Knoxville, with the goal of continuing to support underrepresented populations in her future role.

Lidia Morris is a student at UNC Chapel Hill, where she currently works with the Community Driven Archive project. In the summer of 2020, she was a research fellow for the University of Michigan School of Information Research Experience for Master’s Students program. She has career interests in web accessibility for Libraries and information resources.
Benefits of going virtual

● Participants can revisit recordings & asynchronous content bundle later
● More inclusive of people who:
  ○ Need quiet breaks more often
  ○ Benefit from having optional sessions
  ○ Couldn’t spend a week away from home
<table>
<thead>
<tr>
<th>Time</th>
<th>Monday August 3</th>
<th>Tuesday August 4</th>
<th>Wednesday August 5</th>
<th>Thursday August 6</th>
<th>Friday August 7</th>
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</thead>
<tbody>
<tr>
<td>12:00-12:30pm</td>
<td>Jumpstart welcome! Overview, intros, &amp; norm-setting</td>
<td></td>
<td>Daily check-in</td>
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<td>12:30–12:45pm</td>
<td>Break (15 minutes)</td>
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<tr>
<td>12:45–1:45pm</td>
<td>Welcome, continued</td>
<td>Career Paths in Library Technology</td>
<td>A Day in the Life of a Tech Librarian</td>
<td>Applying to Your First Library Tech Job</td>
<td>Technology Showcase</td>
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<tr>
<td>1:45–3:00pm</td>
<td>Break (1 hour 15 minutes)</td>
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<tr>
<td>3:00–4:00pm</td>
<td>Workshop: Intro to Git &amp; GitHub</td>
<td>Workshop: Intro to Python (Build a Twitter Bot)</td>
<td>Workshop: Intro to Web Development</td>
<td>Workshop: Intro to Machine Learning</td>
<td>Q&amp;A with Greg Raschke &amp; Jill Sexton</td>
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<td>4:00–4:15pm</td>
<td>Break (15 minutes)</td>
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<tr>
<td>4:15–5:15pm</td>
<td>Workshop, continued</td>
<td>Workshop, continued</td>
<td>Workshop, continued</td>
<td>Workshop, continued</td>
<td>Closing Reflections</td>
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<tr>
<td>5:15–5:30pm</td>
<td>Break (15 minutes)</td>
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<tr>
<td>5:30–6:00pm</td>
<td>Optional office hour</td>
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**Final schedule**

**More breaks!**
Program Delivery

- Starting off on the right foot --
  - Setting group norms
  - Daily check-ins (gifs included)
- Our pal padlet
- Creating community in a virtual environment
## Technical Workshops

<table>
<thead>
<tr>
<th>Day 01: Git &amp; GitHub</th>
<th>Day 02: Python Twitter Bots</th>
<th>Day 03: Intro to Web Development</th>
<th>Day 04: Machine Learning</th>
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<tbody>
<tr>
<td>Participants learned how to collaborate and use version control with Git &amp; GitHub.</td>
<td>With Python as our language of choice, participants created simple Twitter bots to learn Python basics.</td>
<td>Participants created small, functional web applications using Flask.</td>
<td>Our stretch day: an accessible intro to the concepts of machine learning and its possible applications in Libraries.</td>
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Main challenge: troubleshooting over Zoom
## Panels

<table>
<thead>
<tr>
<th>Panel</th>
<th>Description</th>
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<tbody>
<tr>
<td>01</td>
<td><strong>Career Paths in Library Technology</strong></td>
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<td></td>
<td>Participants got to hear the story of how three library tech professionals</td>
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<td>arrived in their current positions.</td>
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<td>02</td>
<td><strong>A Day in the Life of a Tech Librarian</strong></td>
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<td>Participants were able to get a glimpse into the day-to-day realities of</td>
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<td>different library tech professionals.</td>
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<tr>
<td>03</td>
<td><strong>Technology Showcase</strong></td>
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<td></td>
<td>3 of our colleagues got to show off their recent projects to give</td>
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<td>participants a clearer sense of the types of things they might work on</td>
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<tr>
<td></td>
<td>as a tech librarian.</td>
</tr>
<tr>
<td>01</td>
<td>Applying to Your First Library Tech Job</td>
</tr>
<tr>
<td>02</td>
<td>Q&amp;A With Libraries Administration</td>
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Mentorship

Each participant was paired with a mentor in the Libraries who matched with their interests as expressed in the interview process.

They met with their mentor once during the program and at least once after.

Goal = to start building a support network
Asynchronous Content Bundle

Career Path & Day in the Life profiles

Glossary of technical terms

Tech Showcase videos

Navigating the Profession videos

Build Your Web Presence slide deck
Program Assessment

We sent out...

- A pre-program knowledge & attitudes survey
- A post-program knowledge & attitudes survey
- A post-program general satisfaction survey

And we plan to do a 6-month check-in video interview.
All 7 participants who completed the post-program satisfaction survey **strongly agreed** with this statement:

“I am likely to recommend the Jumpstart Program to other LIS/IS students.”
“The workshops provided enough direction for me to identify possible interests in lib tech and explore things further on my own. I also really value the mentorship and getting to know the librarians at State. I plan on staying connected with them as I build toward a career in lib tech. There is a huge need for exactly what Jumpstart is offering so I would definitely recommend this program to other LIS students and am really excited to see the program hopefully continue in future years and expand.”

“Everyone from NC State who gave real-world examples and talked through their experiences was the biggest help in contextualizing library technology, which is what I needed.”

“I enjoyed all the programming exercises, even if they were a little overwhelming. It is a great feeling when a program you write or edit actually works! Eureka!”

“I really enjoyed going through the additional asynchronous content after the program was over!”

^^ Positive Feedback ^^
“Doing everything virtually and not being in the same physical space [was challenging]. I struggled with this particularly when I or other ran into problems and needed help troubleshooting. The problem seemed to be fixed but I wish we had enough time for me to understand what exactly was the issue and how we fixed it. Being in the virtual environment made the Q&A and troubleshooting part less dynamic for me though I think given the circumstances they were handled well.”

“Hopefully next time this program is offered there will be a way for participants to bond and get to know each other better. I had a hard time connecting with my fellow Jumpstarters through Zoom and Slack :(

“The practical applications were a lot to take in without any background. It might have been helpful to have some introductory readings or vocabulary prior to the session.”

“It would be great if instead of asking participants to request accommodations to make them already available as much as possible (born accessible).”

“The content of the program on its own was very satisfactory. I think I would have gained more from the workshops if I had done some pre-work coming into the workshop, I think my learning was often stuck on the surface level trying to grasp the basics”
Next Steps

➔ We plan to offer this program again in a similar format at around the same time next year.

➔ Coming Soon! -- A framework for planning this type of event at your institutions.

➔ Continuing the conversation...
  ◆ How can this framework potentially be applied in other contexts?
  ◆ How do we better prepare LIS students for the types of work they’ll be doing in libraries once they graduate?
  ◆ What is the future of technology in Libraries? What do students need to know and what’s the best way to teach/learn it all?
Questions?

We’re happy to talk more about our application process, any of the specific workshops or panels, our assessment plan, or anything else! We also welcome feedback on where we should take this next and welcome ideas for potential collaborations.

https://www.lib.ncsu.edu/jumpstart

Contact us:
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