



# Tools with Purpose: Modernizing the SPS Careers Toolbox to Better Serve Today's Physics Students

Presenter: James Addison III  
SPS Careers Toolbox Intern  
Mentor Dr Alejandro de la Puente

- **What is the Careers Toolbox**
- **My Story / Connection with others**
- **Project Goals**
- **Advisor Survey**
- **Design strategy**
- **Future Goals**
- **Progress so far**
- **Takeaways**

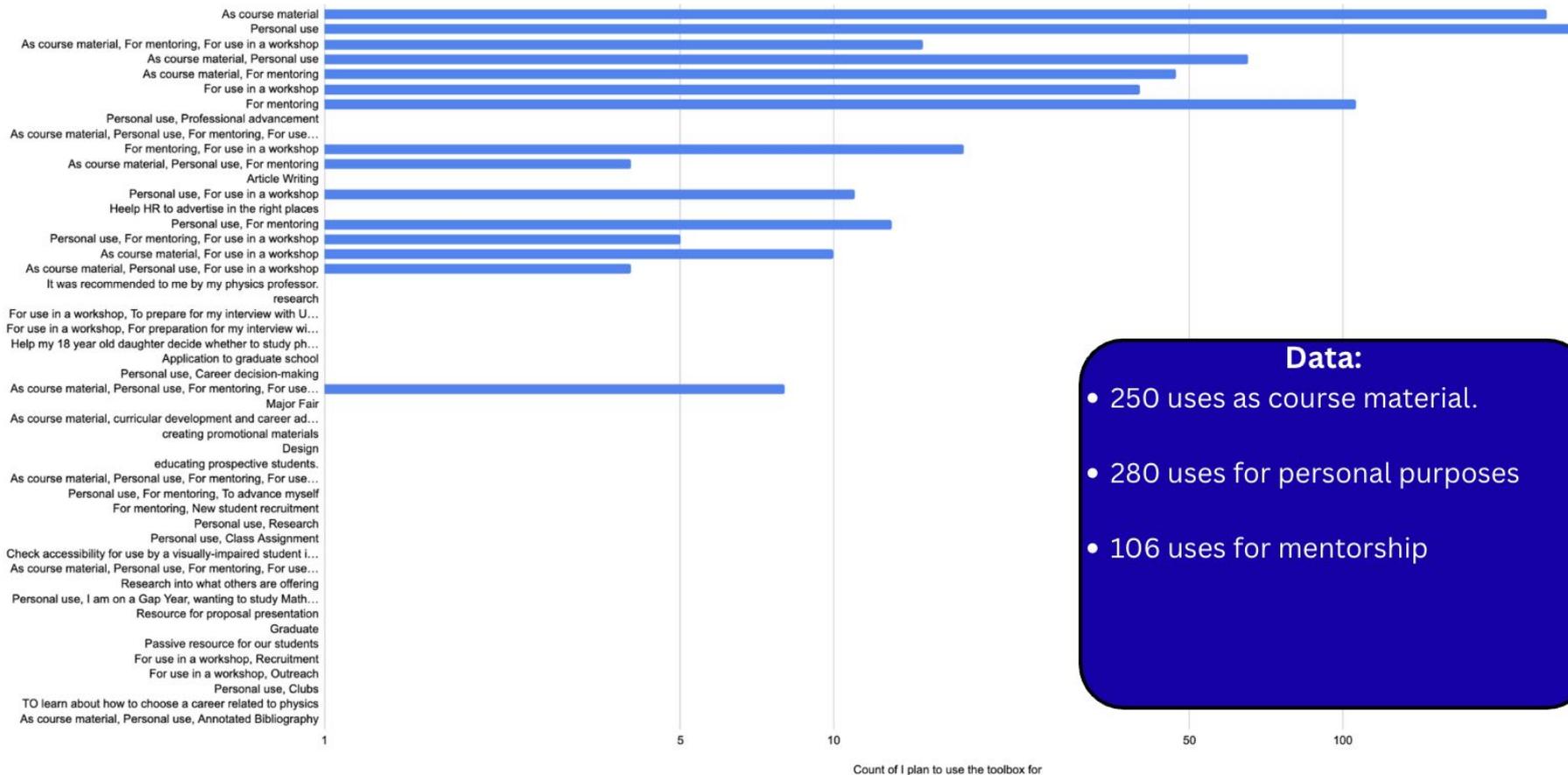
### Problem: Lack of Career Preparedness

- There was a lack of guidance for students who only wanted to pursue a bachelor's degree.
- Most university career centers were not well equipped to help physics majors.
- Students struggled to translate what they learned in class into practical skills they could showcase on a resume.

### Solution: The Careers Toolbox

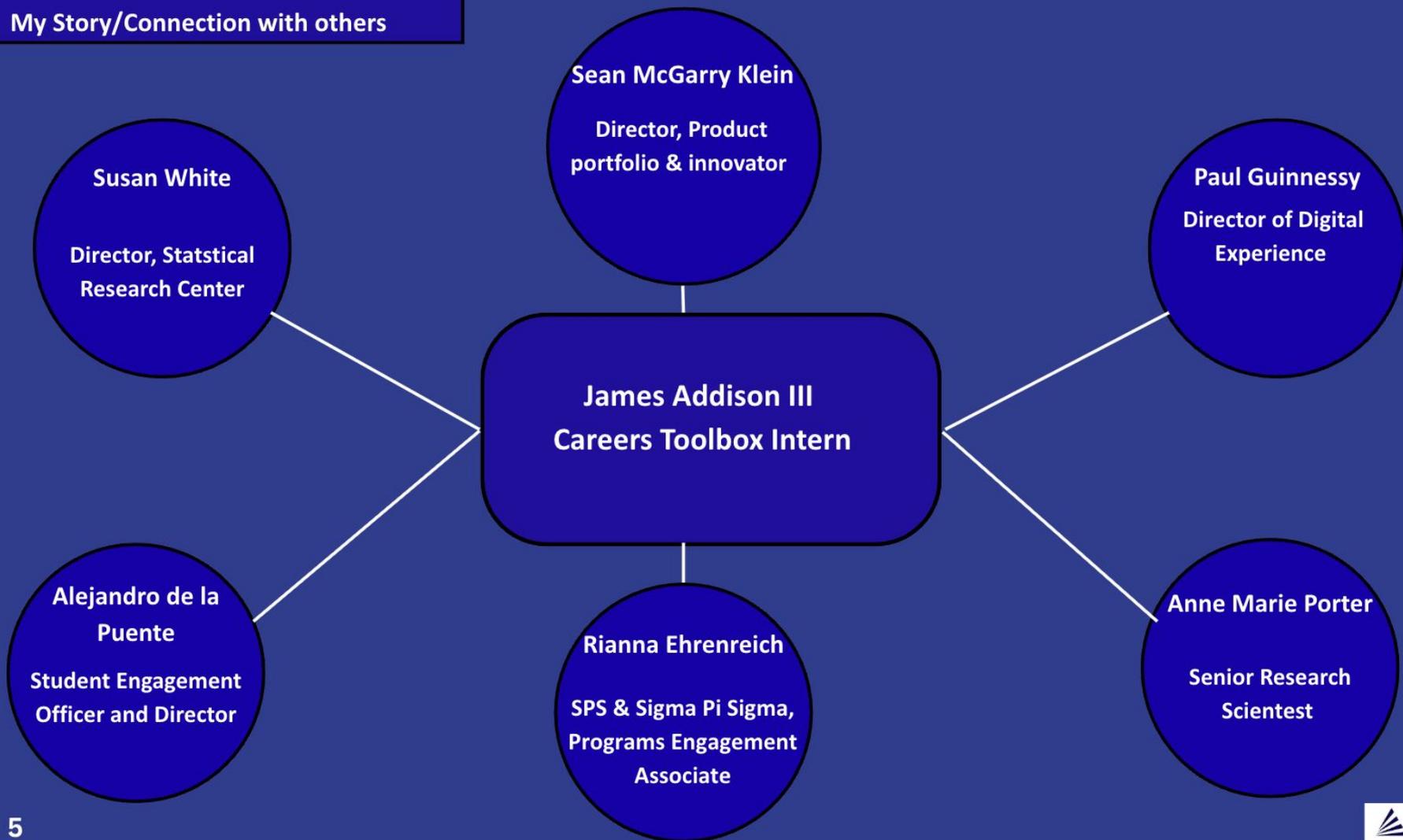
- The Careers Toolbox equips physics students with career focused tools designed to translate their academic experience into real-world opportunities.
- It focused primarily on career readiness without the need for graduate school.

Count of I plan to use the toolbox for



**Data:**

- 250 uses as course material.
- 280 uses for personal purposes
- 106 uses for mentorship



## Phase 1

- Conduct a student feedback focus group.
- Create and distribute an advisor survey.
- Use feedback from the intern focus group and advisor survey to initiate the first steps of the DXP migration.

Gathering  
Input

## Phase 2

- Analyze student and advisor responses.
- Identify shared modernization priorities.
- Increasing the interactivity of the Careers Toolbox.

Prioritizing  
Features

## Phase 3

- Launch A new Survey to rank current and proposed features.
- Validate what students and advisors find most valuable.
- The Use of Jebbit for future surveys.

Validating  
Tools

## Phase 4

- Use P.I.E.M.E to evaluate feasibility and impact of new features. The acronym stands for, Patterns, Implementation, Evaluate, Measure, Execution.

Executing with  
P.I.E.M.E.

### What Students Want

- A guide that helps students explore careers through storytelling and alumni profiles.
- Dedicated career advice beyond generic tips.
- An integrated hub that connects students to internships, REUs, and mentorships through curated links.

### How should it be improved

- Adding alumni story telling within the Careers Toolbox
- Highlight how AI-powered tools can help students asses their skills
- Expand guidance on internships and early career experiences

### Format & Accessibility

- Bold key points to emphasize the most important takeaways.
- Link stories to relevant tools and include valid and up to date resource URLs.
- Transform the 80-page PDF into an interactive website.

### Advisor Survey

#### Student Challenges

- Career Uncertainty
- Lack of Advising Support
- Limited Career Exposure
- Moving Into Industry
- Gaps in Academic Career & Limited Career Skills

#### Awareness/use of the Careers Toolbox

- The Careers Toolbox is not really well know and often forgotten about

#### Content Gaps

- Career assessment
- Creating a competitive resume
- Hiring managers potentially not knowing what a physics major can do

#### Format and Visibility

- 80 pages is intimidating
- It's not really interact-able or easy on the eyes.

## Summary.

- Faculty need a interactive & effective reference
- Students need career clarity
- Industry does not really know the value of physic majors
- A complete format overhaul of the Careers Toolbox is needed

## Design Strategy (SUMMER FOCUS)

**Gathering  
Feedback**



**Analyze  
Feedback**



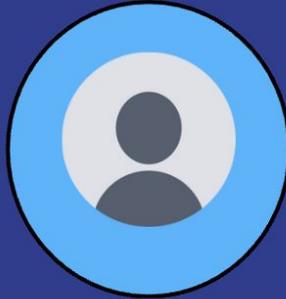
**Drafting  
a Design  
plan**



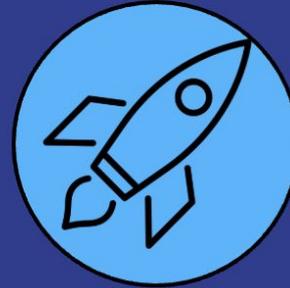
**Initial  
migration**



Working towards an interactive site experience



Incorporating alumni stories within the toolbox



Updating the branding and advertisement of the Careers Toolbox.



Being able to better track usage, and engagement of the Careers Toolbox



Finding more ways to make the Careers Toolbox inclusive for all students



Creation of AI-powered tool for self-assessment based on skills and goals/ resume creation

- **Cross-disciplinary collaboration:** Partnered with designers, researchers, and staff to modernize the Toolbox.
- **Independent project management:** Led my own workflow, setting goals and making decisions independently.
- **Human-centered design approach:** Balanced student and advisor voices to create practical, inclusive tools.
- **Data-driven design:** Turned feedback into a resource that's relevant and user-focused.

### Special thanks:

Alejandro De La puente: Main Mentor

Toni Sauncy: Mentor

Kayla Stepehens: Mentor

Sean Klein: Mentor

Susan White : Director of Statistical Research

Anne Marie: Senior Research Scientist

Jordana Oman: Associate Social Scientist

Rianna Ehrenreich: SPS and Sigma Pi Sigma Programs  
Engagement Associate,

Paul Guinnessy: Director of Digital Experience

Mikayla Cleaver: Intern Coordinator

Michael Rogers

News & Stories   Get Involved   Plan Your Future   Alumni   Congress   About Us
Q

## Careers Toolbox-JA

**Tool #1: Common Job Titles**

A physics degree opens many career paths, but navigating those options can feel overwhelming. Tool 1 helps you explore potential directions based on your interests, values, and skills. Whether you're pursuing a job, internship, or graduate school, this tool provides strategies and resources to help you evaluate opportunities and take the first step with clarity and confidence.

Below are various stories from Alumni in multiple career paths ranging all the way from education to industry.

**Alumni Stories**

ALUMNI / INTERVIEW

**Colton John "The Dirk"**  
Marine Fighter Pilot and Operations Analyst

ALUMNI / INTERVIEW

**Reflections on an academic job search**

ALUMNI / INTERVIEW

**G&M Marty Taylor enhances students' skills and their sense of belonging as physicists**

ALUMNI / INTERVIEW

**G&M Michelle Fourvet on whale biostatistics**

**Physicist Career Profiles**

APS Physicist Profiles offers a collection of real-world career stories from physicists across diverse industries and backgrounds. These profiles highlight the wide range of opportunities available with a physics degree, helping students and early-career scientists explore potential paths, gain inspiration, and understand how others have navigated their career journeys.

**Who's Hiring Physics Bachelors**

What Hiring Physics Bachelors is a resource from the American Institute of Physics that showcases the wide range of companies and organizations that employ physics bachelor's degree holders. It provides real-world examples of job titles, industries, and employers, helping students and recent graduates understand where a physics degree can take them. This tool is especially useful for exploring career paths beyond academia and identifying potential opportunities in non-academic fields like engineering, technology, finance, and education.

**Other resources for finding job titles**

OPNET Online is a free career exploration and job analysis tool provided by the U.S. Department of Labor. It allows students, job seekers, and career changers to explore occupations based on their interests, skills, or values, and discover the required education, tools, and certifications for each job. The site also suggests employers and educators by offering detailed information for creating training programs, writing resumes, or matching people to jobs using an individualized key. OPNET is a comprehensive resource that helps users make informed decisions about their career paths and development.

### Tool #2: Informational Interviews

Informational interviews are one-on-one conversations with professionals to learn about specific jobs or career paths. They help you explore whether a role fits your interests, skills, and goals before applying. These interviews give insight into job details, workplace environments, and industry-specific language. They also help you build confidence, improve communication skills, and expand your professional network. Conducting several can clarify your direction and save time in your job search.

Below are key steps that explain how to conduct informational interviews, why they are valuable for exploring career paths, and how they can shape your professional journey. These interviews offer firsthand insights from professionals, helping you better understand roles, industries, and expectations. You'll also find tips on how to prepare effectively to make the most of each conversation.

---

Why do informational interviews?



---

How to prepare for an informational interview?



---

What are some Do's and Dont's for a informational interview

---



**Thank You!**  
**Any Questions or Comments?**