

UTSA School of Data Science

# Data Science & AI Community Innovation Scholars

Undergraduate Programs



# NONPROFIT

INFORMATION SESSION



# AGENDA



- 01 BRIEF INTRO TO UTSA SCHOOL OF DATA SCIENCE**  
About the school, components, & program staff
- 02 PROGRAM OVERVIEW**  
Investment from H-E-B, purpose, intended outcomes
- 03 STUDENT SELECTION**  
Eligibility, recruitment efforts, & interest levels
- 04 PROJECT SELECTION PROCESS**  
Research question, data in hand, timeline, & application process
- 05 QUESTIONS**  
Q&A session



## **UTSA** The University of Texas at San Antonio School of Data Science

The first of its kind in the state of Texas, UTSA's School of Data Science brings together the colleges of Business, Engineering, and Sciences by offering 12 data-intensive degree programs.

Our world-class 35 core faculty, faculty fellows, and staff work in tandem with hundreds of students to discover, teach, learn, and use data science and analytics for positive societal and economic impact.

UTSA is designated as a Carnegie Classification of Institutions of Higher Education R1 Research university, which places us among the top 4% of research universities in the nation.

**UTSA** School of Data Science

**Data Science & AI**

**Community Innovation Scholars**

**Undergraduate Programs**



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United Way of San Antonio  
and Bexar County

# PROGRAM OVERVIEW



The Data Science & AI Community Innovation Scholars program will provide students with opportunities to support nonprofit organizations in better understanding and using their data, while the students gain direct professional experience and help increase the community impact of San Antonio's nonprofits.

01

## **DATA FOR SOCIAL GOOD**

Exploring & envisioning data-intensive practices that are scientifically rigorous and socially responsible.

02

## **INAUGURAL SUMMER INTERNSHIP**

Commitment to education, service, and research.

03

## **INTENDED BENEFITS**

Institution, student, and partner organizations

# **PARTNERSHIP ROLES & RESPONSIBILITIES**

## **UTSA**

- Design, develop, and oversee program
- Select students
- Select nonprofit partners
- Provide student compensation
- Ensure completion of non-disclosure agreements

## **United Way of San Antonio & Bexar County**

- Co-design and co-develop program
- Support nonprofits in the development of applications
- Promote program among partners
- Host one team as a project partner

# STUDENT SELECTION



## STUDENT PROFILE

- Upper division (60+ hrs)
- Interdisciplinary
- 3.0 GPA in relevant courses



## CODING

Programming experience preferred, but can also complete LinkedIn course beforehand



## APPLICATION

- Personal statement
- Resume
- Commitment

# PROGRAM TIMELINE

Weeks  
1 & 2

Weeks  
3 & 4

Weeks  
5 - 8

Weeks  
9 - 10

Week  
"11"

Skills/  
Team Formation

Understanding  
the problem

Scoping  
solutions

Polishing your  
data story

Presentations  
& celebration

Each student team will be actively working on its assigned project for an estimate of **17 hours per week** between weeks 3 and 10. That's a total of **126 hours** to work on their assigned project.






# Program Timeline

## Dates



Month	Day/s	Week	Holidays	Objective
May	17	Orientation		
	20-23	Week 1		Intro to program, team building, technical skills
	27-30	Week 2	<i>27 - Memorial Day</i>	Research methods, technical skills, team assignments
June	3-6	Week 3		Understanding the problem - data cleaning
	10-13	Week 4		Understanding the problem - Develop strategy
	17-20	Week 5	<i>19 - Juneteenth</i>	Scoping solutions - implementation
	24-27	Week 6		Scoping solutions - implementation
July	1-4	Week 7	<i>4 - 4th of July</i>	Scoping solutions - implementation
	8-11	Week 8		Scoping solutions - implementation
	15-18	Week 9		Polishing your data story
	22-25	Week 10		Polishing your data story
	29-31	"Week 11"		Wrap-up, presentation prep, celebration





# WEEKLY SITE VISITS TO NONPROFIT ORG.

Purpose – Site visits help students attain contextual knowledge about their projects.

## LOGISTICS

- Beginning week 3 - June 4th/5th
- Once per week - Tues. OR Wed - 5 hours
- Point of contact (consistent through program duration)
- Background check where needed
- Parking
- Workspace for at least 2 students



# **PROJECT SELECTION**

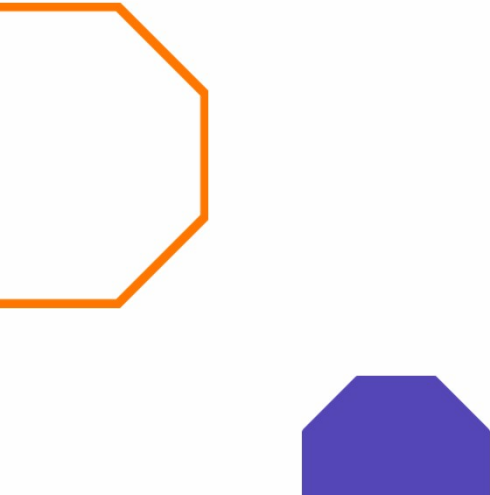
## **TWO-STEP PROCESS**

### **I. PROJECT INTAKE:**

Application form submitted by April 5th, 2024. Gathers all initial information about proposed project (details, goals, methodologies, and data).

### **II. PROJECT SCOPING:**

Additional follow-up will be conducted with selected proposals from the intake process to ensure desired outcomes are achieved. This phase will conclude with the signature of MOUs.



# **A successful application will feature:**

1. A data-related problem to solve or question to be answered through research and data analysis/science skills
2. Data in hand – in consideration of the timeframe
3. An organization's capacity to support student teams
4. Potential for longevity & sustainability
5. Strong rationale for why and how the project will make a positive social impact



# PROPOSAL DEVELOPMENT

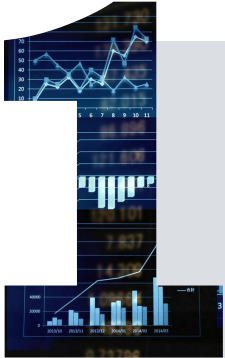
## Formulating a research question related to:

- Service delivery and outcomes
- Fundraising and events
- External engagement  
(volunteer / donor / board)
- Marketing and communications  
(web, social media, email, media)
- Community needs
- Other areas of agency operations

## Procuring sufficient data for analysis:

- Client management data
- Donor management data
- Board and volunteer management data
- Google analytics
- Content Management data
- Community demographic data

# SAMPLE PROJECTS



## Program Efficacy

**Question:** What attributes (sociodemographic and program engagement) of enrolled clients are correlated with achievement of program outcome(s)?

**Data Source:** Client Management System; 5 years client enrollment demographics, intake and exit assessment results

**Analysis:** Exploratory to understand structure, patterns, and relationships



## Donor Behavior

**Question:** Based on agency giving history, what giving patterns can we anticipate over the next three years?

**Data Source:** Donor Management System; 5 years donor demographics, giving history, and engagement

**Analysis:** Predictive modeling using machine learning algorithms

# SAMPLE PROJECTS



## Brand Perception

**Question:** How have community perceptions of our agency changed over the last five years?

**Data Source:** Eight years of social media engagement, media coverage, and reviews

**Analysis:** Sentiment analysis using natural language processing



## Community Data

**Question:** How closely do our geographic and demographic service patterns align with community characteristics and distribution of need?

**Data Source:** One year of deidentified client data with demographic categories and census data

**Analysis:** Interactive mapping visualization

# APPLICATION

## CLARIFYING QUESTIONS

SECTION I: Organization details

SECTION II: Organizational data capacity

SECTION III: Project proposal

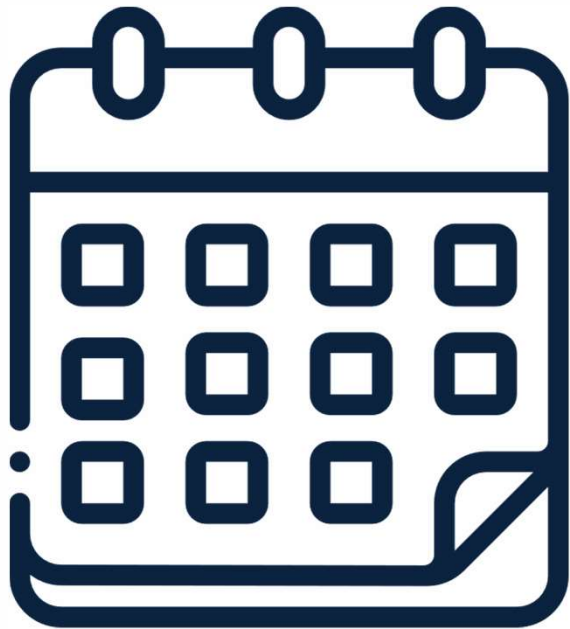
SECTION IV: Data use, storage, and practices







## KEY DATES 2024



- February 6 - Student application opens
- **March 1** - Nonprofit application opens
- March 13 - Student Application closes
- **April 5** - Nonprofit application closes
- April 12 - Student selections announced
- **April 26** - Nonprofit projects announced
- **May 10** - Signed MOU due to UTSA
- **May 17** - Orientation
- May 20 - 1st day of internship
- **July 31** - End of program/Celebration

The image features a central text element 'Q & A' in a bold, orange, sans-serif font. This text is positioned between two horizontal orange lines that have a trapezoidal shape, with the top line above and the bottom line below. On the left and right sides of the central text, there are dark blue, angular shapes that resemble stylized brackets or decorative elements, extending towards the edges of the frame.

**Q & A**

# THANK YOU!

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## SCHEDULE SUPPORT

Emily Kittrell  
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March 18 – April 5