Spring 2019

DEPAUL CENTER FOR DATA SCIENCE

DEPAUL UNIVERSITY
COLLEGE OF COMPUTING AND DIGITAL MEDIA
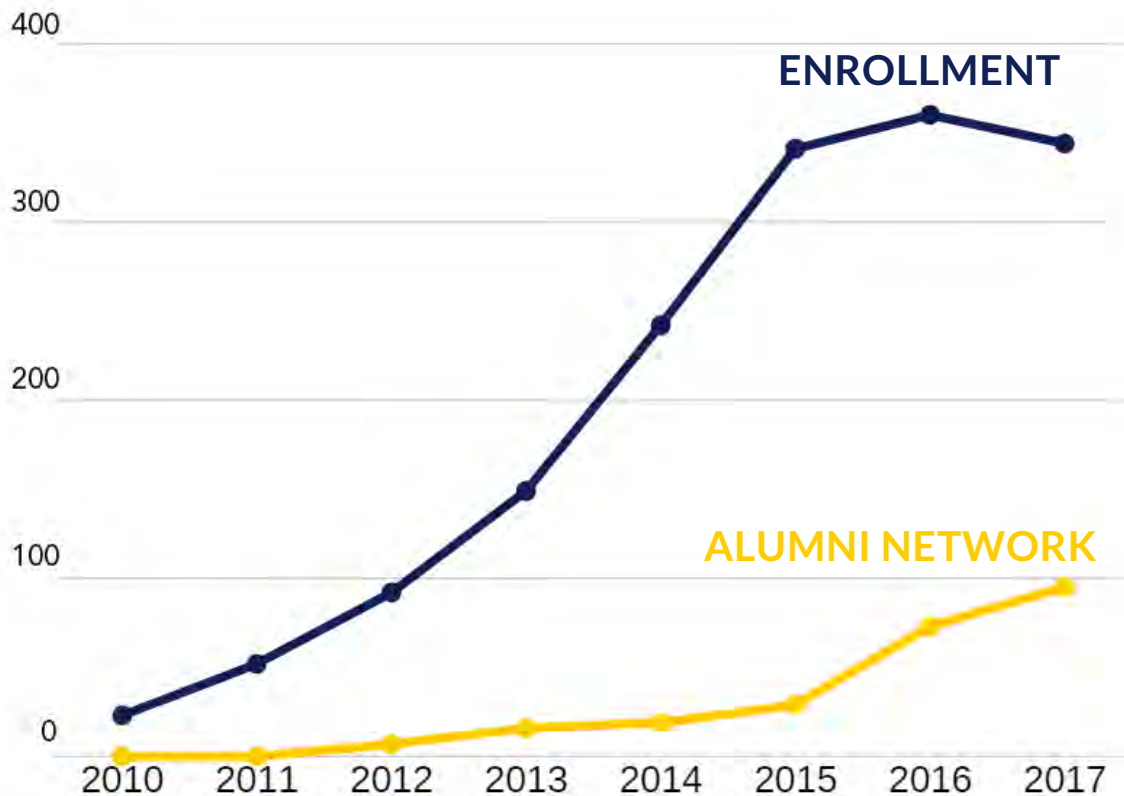
FACTS & STATS

DID YOU KNOW...

- The Center for Data Science (formerly known as Center for Data Mining and Predictive Analytics) was launched in Spring 2010 under the leadership of three College of Computing and Digital Media faculty and one Kellstadt Graduate School of Business faculty.

- The MS in Data Science program was started in Fall 2010 under the name of MS in Predictive Analytics.

- 344 students enrolled in the MS in Data Science program in the 2017 - 2018 academic year; 195 alumni had membership in the Data Science alumni network in 2017.

- Top industries hiring CDM Data Science students include financial services, school & education management, IT & services, hospital & health care, and Internet.

- Top job positions held by students after graduation include data scientist, data analyst, senior analyst, business data analyst, and consultant.

- The Center for Data Science was awarded a SIGKDD (ACM Special Interest Group on Knowledge Discovery and Data Mining) grant to offer the Data Science Summer Academy 2018.

- 15 out of 173 high school junior and senior applicants from 167 Chicago Public Schools participated in the Data Science Summer Academy 2018.

- Dr. Daniela Raicu and Dr. Enid Montague were recently awarded a National Science Foundation (NSF) grant to support their collaborative project in the field of health analytics and human computer interaction.

MS IN DATA SCIENCE OUTCOMES

2010 - 2017

TOP INDUSTRIES

- Financial Services
- School & Education Management
- IT & Services
- Hospital & Health Care
- Internet
- Computer Software
- Marketing & Advertising
- Insurance

REPRESENTATIVE POSITIONS

- Data Scientist
- Data Analyst
- Senior Analyst
- Business Data Analyst
- Consultant

DATA SCIENCE SUMMER ACADEMY

The Data Science Summer Academy is an intensive week-long program to introduce high school students to the fast-growing field of data science. Students explore ways to analyze data and learn how to create innovative solutions using digital information to make a positive impact in our society. The Summer Academy 2018 was made possible by a grant from the ACM Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD) Impact Program. The SIGKDD Impact Program aims to support projects that promote data science, increase its impact on society, and help the data science community. The DePaul proposal is one of the 7 outstanding proposals that received funding, among the 75 submissions in total from 20 countries.

OBJECTIVES

- Get high school students (particularly from under-served communities) excited about pursuing data science in college and careers.
- Teach basic data science concepts, tools & techniques with hands on applications for problems students can relate to.
- Introduce students to a wide variety of domain applications and career possibilities in data science through guest speakers.

PARTICIPANTS

- 15 out of 173 high school juniors and seniors from 167 Chicago Public Schools joined the program,
- Students were picked from a wide spectrum of school districts to ensure broad ethnic diversity as well as a wide range of economic backgrounds among students.
- 58% of the students were female, and 50% of them were Hispanic.
- 7 DePaul faculty and 1 high school teacher assisted throughout the program.

TESTIMONIALS

- "All of the speakers [were my favorite], because they provided a perspective of someone who works in the field and taught us a lot of what they actually did."
- "It was fascinating to see how graphs could tell a story about data."
- "I loved learning new applications and ways to analyze and visualize data."
- "Thank you for not dumbing it down!"

NEXT STEPS

- Increase outreach to students in economically disadvantaged communities.
- Seek higher engagement from Chicago high school teachers in the design of the curriculum.
- Look for industry partnership in offering the data science summer program.

http://ddssacademy.wordpress.com

FACULTY NEWS

Dr. Daniela Raicu and Dr. Enid Montague were recently awarded a NSF grant for their collaborative project - Feedback for health providers: Providing feedback about affect and interaction to patients and providers to increase positive interactive behaviors.

PROJECT DESCRIPTION

The long-term goal of this project is to enhance health and wellbeing by using technology to provide automatic feedback about physician-patient interactions to care providers who work in minority serving clinics, and their patients.

A key requirement for achieving this goal is providing patients and providers with information about their behaviors and interactions (i.e. feedback) though a feedback system that is useful, usable and integrated into clinical workflow.

Through a series of studies we will:
(1) Extract useful interactive data from clinical encounters by recording and analyzing primary care visits and automatic extraction of measures of affect, human-human interaction and human-technology interaction. Calibration of this system will begin with previously collected videos of primary care visits.
(2) Use participatory design methods to design an interaction feedback system based on system and user needs.

Keywords: human centered design; affective computing; human factors; teamwork; computer vision; health

For more information about this project, please contact Dr. Daniela Raicu (draicu@cdm.depaul.edu) and Dr. Enid Montague (emontg1@depaul.edu).

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