

# Devamardeep Hayatpur

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<https://hayatpur.dev/>

## Education

- Sep 2021–  
Sep 2016–  
May 2021
- PHD in *Cognitive Science* (In Progress), University of California San Diego. Advisor: Haijun Xia.  
BSc in *Computer Science*, University of Toronto. GPA: 3.84, Dean's List Scholar (2016–2018), Honour Roll (2016–2018).

## Publications

- 2024
- D. Hayatpur**, B. Hempel, K. Chen, W. Duan, P. Guo, and H. Xia.  
[Taking ASCII Drawings Seriously: How Programmers Diagram Code.](#)  
*CHI 2024: Conference on Human Factors in Computing Systems*. 🏆 (Top 5%).
- 2023
- D. Hayatpur**, D. Wigdor, and H. Xia.  
[CrossCode: Multi-level Visualization of Program Execution.](#)  
*CHI 2023: Conference on Human Factors in Computing Systems*.
- 2023
- D. Hayatpur**, T. Helfenbaum, H. Xia, W. Stuerzlinger, and P. Gries.  
[Structuring Collaboration in Programming Through Personal-Spaces.](#)  
*CHI 2023 Conference on Human Factors in Computing Systems (Late-Breaking Work)*.
- 2020
- D. Hayatpur**, H. Xia, and D. Wigdor.  
[DataHop: Spatial Data Exploration in Virtual Reality.](#)  
*UIST 2020: ACM Symposium on User Interface Software and Technology*.
- 2019
- D. Hayatpur**, S. Heo, H. Xia, W. Stuerzlinger, and D. Wigdor.  
[Plane, Ray, and Point: Enabling Precise Spatial Manipulations with Shape Constraints.](#)  
*UIST 2020: ACM Symposium on User Interface Software and Technology*.

## Research Internships

- May 2020–  
Sep 2020
- VISITING SCHOLAR, University of California, San Diego. Supervisor: Haijun Xia.  
Studied visual representations of computer programs and developed computational methods to generate multi-level visualizations of program behaviour.
- May 2019–  
May 2020
- STUDENT RESEARCHER, University of Toronto. Supervisor: Daniel J. Wigdor.  
Designed and implemented a novel immersive analytics system in virtual reality that capitalizes on spatial cognition skills to analyse large data sets.

May 2018– Sep 2018	STUDENT RESEARCHER, University of Toronto. Supervisor: Daniel J. Wigdor. Developed interaction techniques for efficiently arranging objects in virtual reality using expressive hand gestures.
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## Teaching Experience

Apr–Jun 2024	INTRODUCTION TO DATA SCIENCE, University of California, San Diego. Teaching Assistant (COGS 108)
Sep–Dec 2023	INTRODUCTION TO PYTHON, University of California, San Diego. Teaching Assistant (COGS 18)
Jan–May 2023	HCI TECHNICAL SYSTEMS RESEARCH, University of California, San Diego. Teaching Assistant (COGS 124)
Sep–Dec 2022	INTERACTION DESIGN, University of California, San Diego. Teaching Assistant (COGS 120)
Apr–Jun 2022	PORTFOLIO STUDIO, University of California, San Diego. Teaching Assistant (COGS 121)
Jan–Apr 2022	INTERACTION DESIGN, University of California, San Diego. Teaching Assistant (COGS 120)
Jan–May 2019	SOFTWARE TOOLS AND SYSTEMS PROGRAMMING, University of Toronto. Teaching Assistant (CSE 209)

## Mentoring

WILLIAM DUAN, Undergraduate – University of California, San Diego.  
KATHY CHEN, Undergraduate – University of California, San Diego.  
TEHILLA HELFENBAUM, Undergraduate – University of Toronto.

## Invited Talks

May 2023	TAKING ASCII DRAWINGS SERIOUSLY: HOW PROGRAMMERS DIAGRAM CODE, Honolulu, Hawaii. CHI'24, Paper Presentation.
May 2023	CROSSCODE: MULTI-LEVEL VISUALIZATION OF PROGRAM EXECUTION, Hamburg, Germany. CHI'23, Paper Presentation.
Mar 2023	VISUAL PROGRAMMING ENVIRONMENTS, University of California, San Diego. COGS 120: Interaction Design, Guest Lecture.
Oct 2020	DATAHOP: SPATIAL DATA EXPLORATION IN VIRTUAL REALITY, Virtual. UIST'20, Paper Presentation
Oct 2019	PLANE, RAY, AND POINT: ENABLING PRECISE SPATIAL MANIPULATIONS WITH SHAPE CONSTRAINTS, New Orleans, United States. UIST'19, Paper Presentation.

## Academic Service

2022	REVIEWER, CHI 2023: Conference on Human Factors in Computing Systems.
2021	REVIEWER, CHI 2022: Conference on Human Factors in Computing Systems.

## Academic Awards

2024	NSERC PGS D; \$63,000 CAD over 36 months
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