

Devamardeep Hayatpur

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hayatpur.dev

Education

University of California, San Diego

PhD, Cognitive Science

Sep 2021 -

- Advisor: Haijun Xia

University of Toronto

BSc, Computer Science

Sep 2016 - May 2021

- GPA: 3.84
- Dean's List Scholar (2016, 2017, 2018)
- Honour Roll (2016, 2017, 2018)

Research Internships

Visiting Scholar, University of California San Diego

Supervisor: Haijun Xia

May 2020 - Sep 2020

- Studied visual representations of computer programs and developed computational methods to generate multi-level visualizations of program behaviour.
- Research areas: computer science education, visual representations, program analysis.

Student Researcher, University of Toronto

Supervisor: Daniel J. Wigdor

May 2019 - May 2020

- Designed and implemented a novel immersive analytics system in virtual reality that capitalizes on spatial cognition skills to analyse large data sets.
- Research areas: virtual reality, information visualization, spatial cognition.

Student Researcher, University of Toronto

Supervisor: Daniel J. Wigdor

May 2018 - Sep 2018

- Developed interaction techniques for efficiently arranging objects in virtual reality using expressive hand gestures.
- Research areas: virtual reality, interaction techniques, scene design

Research Projects

Collaborative Programming Education Interfaces

Supervisor: Paul Gries

May 2020 - Aug 2022

- Explored alternative collaboration paradigms for synchronously writing code that encourage engagement, agency, and an even workload.
- Research areas: computer science education, collaborative learning

Publications

CrossCode: Multi-level Visualization of Program Execution.

CHI 2023: Conference on Human Factors in Computing Systems

Devamardeep Hayatpur, Haijun Xia, Daniel Wigdor.

[Website](#), [Paper](#), [Video](#)

Structuring Collaboration in Programming Through Personal-Spaces.

CHI 2023 Conference on Human Factors in Computing Systems (Late-Breaking Work)

Devamardeep Hayatpur, Tehilla Helfenbaum, Haijun Xia, Wolfgang Stuerzlinger, Paul Gries.

[Website](#), [Paper](#), [Video](#)

DataHop: Spatial Data Exploration in Virtual Reality.

UIST 2020: ACM Symposium on User Interface Software and Technology.

Devamardeep Hayatpur, Haijun Xia, Daniel Wigdor. 2020.

[Website](#), [Paper](#), [Video](#), [Talk](#)

Plane, Ray, and Point: Enabling Precise Spatial Manipulations with Shape Constraints.

Devamardeep Hayatpur, Seongkook Heo, Haijun Xia, Wolfgang Stuerzlinger, Daniel Wigdor. 2019.

UIST 2019: ACM Symposium on User Interface Software and Technology.

[Website](#), [Paper](#), [Video](#)

Teaching Experience

Software Tools and Systems Programming (CSE 209)

Teaching Assistant, University of Toronto

Jan - May 2019

Interaction Design (COGS 120)

Teaching Assistant, University of California, San Diego

Jan - Apr 2022, Sep - Dec 2022

Portfolio Studio (COGS 121)

Teaching Assistant, University of California, San Diego

Apr - Jun 2022

HCI Technical Systems Research (COGS 124)

Teaching Assistant, University of California, San Diego

Jan - May 2023

Visual Programming Environments

Guest Lecture for COGS 120: Interaction Design, University of California, San Diego

Mar 2022

Invited Talks

Plane, Ray, and Point: Enabling Precise Spatial Manipulations with Shape Constraints

Paper Presentation at UIST'19 (New Orleans, US)

Oct 2019

DataHop: Spatial Data Exploration in Virtual Reality

Paper Presentation at UIST'20 (Virtual)

Oct 2020

Academic Service

Reviewer

CHI'22, CHI'23