# Jasmine Otto

Visualization researcher

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### Education

2018–2023 **PhD, Computational Media**, *UC Santa Cruz* "Software Instruments"

2015–2018 MS, Applied Math, University of Illinois at Chicago

2012–2015 **BS, Mathematical CS**, *University of Illinois at Chicago* Summa cum laude.

# Experience

NASA Jet Propulsion Laboratory

2021-2023 Visualization Developer, NASA JPL

Led communications schedule prototyping for Mars Sample Return.

Ran cross-functional design study with key stakeholders, producing Al-supported design tools for operations schedules, used to discuss capabilities under complex threat scenarios.

2021 Data to Discovery CS Lead, NASA JPL

University of California, Santa Cruz

2018-2023 Doctoral Researcher, UCSC

Developed novel dashboard widgets for MBARI LRAUV operators, supporting their need to train new operators in situational awareness for robotics missions at sea.

2018-2019 Chancellor's Fellow, UCSC

University of Illinois at Chicago

2016-2018 Graduate Research Assistant, UIC

Deployed a JupyterHub notebook server to 30+ users of polynomial homotopy continuation.

#### Selected Publications

- CG&A 2025 MarsIPAN: Optimization and Negotiations in Mars Sample Return Scheduling Coordination, with Benjamin Donitz, Malika Khurana, and Scott Davidoff IEEE Computer Graphics and Applications
  - VIS 2025 An Autoethnography on Visualization Literacy: A Wicked Measurement Problem, with Lily Ge and the CHI 2024 visualization literacy working group IEEE Visualization and Visual Analytics
- BELIV 2024 **Visualization Artifacts are Boundary Objects**, *with Scott Davidoff*10th Workshop on Evaluation and Beyond: Methodological Approaches for Visualization
- AIIDE 2023 **DendryScope: Narrative Designer Support via Symbolic Analysis**, with Autumn Chen and Adam Smith

  AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment
  - CGF 2019 **IGM-Vis: Analyzing Intergalactic and Circumgalactic Medium Absorption...**, with David Abramov, Cassia Artenagara, and Joe Burchett
    Computer Graphics Forum
  - VIS 2019 RuleVis: Constructing Patterns and Rules for Rule-Based Models IEEE Visualization and Visual Analytics
- SciPy 2019 **Solving Polynomial Systems with phcpy**, with Jan Verschelde Scientific Computing with Python Conference



# Professional Service

Co-organizer 10th Experimental AI in Games Workshop (EXAG) at AIIDE 2023 PC member AAAI AI in Interactive Digital Entertainment (AIIDE) 2023 - 2025

PC member ACM Foundations of Digital Games (FDG) 2024 - 2025

Reviewer ACM Computer-Human Interaction (CHI) 2025

# Teaching Experience

- 2021 Visualization Mentor, UCSC Data Visualization Collection
- 2020 Teaching Assistant, UCSC

Game Design Studio capstone: 2 teams of 8-10 students; Data Structures for Interactive Media: section of 30 students; Games Systems: section of 30 students.

- 2019 Science Internship Mentor, UCSCMentored high school students developing interpretable AI systems.
- 2018 **SIG Data Organizer**, *ACM@UIC*Led weekly open labs on scientific computing in Python, JavaScript, and Prolog.

## Distinctions

- 2023 AIIDE Best Artifact Nomination, DendryScope
- 2017 Yeuk-Lam Yau-Leung Memorial Scholarship, in mathematical biology
- 2016 Participant, SMS 2016: Dynamics of Biological Systems, MSRI