

Josh Myers-Dean

[Website](#)

[Github](#)

[Google Scholar](#)

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Boulder, CO

EDUCATION

University of Colorado, Boulder

Computer Science, Ph.D. - GPA: 4.0/4.0

Advisor: Danna Gurari

Boulder, CO

Fall 2021 - Present

Western Washington University

Computer Science, BSc.; Mathematics Minor

Advisors: Scott Wehrwein, Filip Jagodzinski

Bellingham, WA

Awarded June 2021

RESEARCH EXPERIENCE

Allen Institute for AI - PRIOR

Research Scientist Intern

Seattle, WA

Incoming May 2023

Adobe Research

Research Scientist Intern

San Jose, CA

May 2022 - August 2022

University of Colorado Boulder

Graduate Research Assistant

Boulder, CO

August 2021 - Present

Pacific Northwest National Laboratory

NLP Research Intern

Richland, WA

August 2020 - September 2021

Western Washington University

Undergraduate Research Assistant

Bellingham, WA

April 2019 - June 2021

PROFESSIONAL EXPERIENCE

Pacific Northwest National Laboratory

Technical Intern - VR/AR

Richland, WA

June 2020 - August 2020

Western Washington University

Web Applications Developer

Bellingham, WA

April 2019 - June 2020

TEACHING EXPERIENCE

University of Colorado Boulder

Grader - [Neural Networks & Deep Learning](#)

Boulder, CO

January 2022 - April 2022

Western Washington University

Teaching Assistant - [Intro to Computer Vision](#), [Computer Graphics](#)

Bellingham, WA

September 2020 - March 2021

PUBLICATIONS

† Denotes equal contribution

- **Josh Myers-Dean**, Yifei Fan, Brian Price, Wilson Chan, Danna Gurari. Interactive Segmentation for Diverse Gesture Types Without Context. *Under review at ICCV 2023*.
- Trevor Ortega, Thomas Nelson, Skyler Crane, **Josh Myers-Dean**, and Scott Wehrwein. Computer vision for international border legibility. In *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, pages 3838–3847, January 2023
- Haley A. Wofford[†], **Josh Myers-Dean**[†], Brandon A. Vogel, Kevin Alexander Estrada Alamo, Frederick A. Longshore-Neate, Filip Jagodzinski, and Jeanine F. Amacher. Domain analysis and motif matcher (damm): A program to predict selectivity determinants in monosiga brevicollis pdz domains using human pdz data. *Molecules*, 26(19), 2021. [Project Page](#)

- David H. Smith, Qiang Hao, Christopher D. Hundhausen, Filip Jagodzinski, **Josh Myers-Dean**, and Kira Jaeger. Towards modeling student engagement with interactive computing textbooks: An empirical study. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education*, SIGCSE '21, page 914–920, New York, NY, USA, 2021. Association for Computing Machinery
- **Josh Myers-Dean** and Scott Wehrwein. Semantic pixel distances for image editing. In *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops*, June 2020. *Accepted for oral presentation* [Project Page](#)
- Sam Herr[†], **Josh Myers-Dean**[†], Hunter Read[†], and Filip Jagodzinski. Petra: Drug engineering via rigidity analysis. *Molecules*, 25(6):1304, Mar 2020

PREPRINTS

- **Josh Myers-Dean**, Yinan Zhao, Brian Price, Scott Cohen, and Danna Gurari. Generalized few-shot semantic segmentation: All you need is fine-tuning, 2021

PATENTS

- Generating Masked Regions of an Image Using a Predicted User Intent: Filed 12/22

AWARDS

- CU Boulder Research Expo: Best Work In Progress (4 winners) - 2023
- Adobe Code Quality Jam: Best Collaboration, Best Documentation HM, Overall Code Quality HM - 2022
- Graduate Research Fellowship Program: NSF - 2021-2026
- Early Career Professional Development Fellowship: CU Boulder Computer Science - 2021
- James Lee Johnson Memorial Endowment: Western Washington University Computer Science - 2020
- 1st Place - Biosurveillance Mobile App. Dev. Competition: Pacific Northwest National Laboratory - 2020
- Federal Pell Grant: 2015-2021

PRESENTATIONS

- Interactive Segmentation for Diverse Gesture Types Without Context: February 2023, BAIVC Student Symposium
- Giving Context: Entity Classification from a Single Name: August 2021, PNNL Virtual Research Symposium
- Robust Entity Tagging in the Wild: December 2020, PNNL Virtual Research Symposium
- Semantic Pixel Distances for Image Editing: June 2020, CVPR NTIRE. [Video](#)
- Bash: Fall 2019, [Materials](#)
- Machine Learning: Fall 2019, Winter 2020, [Materials](#)
- API: Winter 2020, [Materials](#)

SERVICE

- Reviewer - CVPR 2023

OUTREACH

- **ITLP K-12:** Designing and administering educational materials to 15 students using micro:bits to serve middle and high school students in Boulder. [Program Page](#)
- **Teen Science Cafe:** Presented my path to becoming a graduate student and administered activities relating machine learning to web accessibility to high school students in Lafayette, CO. [Program Page](#)
- **CU Boulder Ph.D. Application Mentoring :** Provided feedback on Ph.D. application materials from applicants to the computer science Ph.D. [Program Page](#)
- **WWU Computer Science Peer Tutor:** Provided assistance to undergraduate students in introductory programming classes such as data structures, automata theory, and computer systems. [Program Page](#)
- **Sunnyland Elementary School “Hour of Code”:** Assisted elementary school students in designing programs using the Scratch programming language. [Program Page](#)

MENTORSHIP

- Stuti Pandey (MS Student): Image Captioning, January 2023 - Present

TECHNICAL SKILLS

- **Languages:** Golang, Python, Javascript, C#, MySQL, R, Shell, Julia, L^AT_EX
- **Technologies & Frameworks:** Docker, Git, PySpark, AWS S3, AWS EC2, PyTorch, Numpy, Unity

RELEVANT COURSES

- Deep Learning, Computer Vision, Computer Graphics, Statistical Methods, Numerical Analysis, Data Driven Modeling, Deep Reinforcement Learning, Bayesian Probability