

# Saoirse (née Nico) Courts

Communicator • Educator • Mathematician • Data Scientist

🏳️: she/they

✉️: me@saoi.phd

🔗: saoi.phd

🌐: saoi-courts

🐱: SaoiCourts

*A warm and sociable mathematician and puzzle nerd with a burning desire to understand and analyze the symptoms of—and root causes for—global conflict and injustice. My years of experience teaching and performing research (from lit review to more creative aspects) and my compassion and empathy make me well-suited to finding, digesting, synthesizing, and delivering instruction in complicated or esoteric subjects. Sometimes I spend entire nights on Wikipedia binges using my custom dark mode CSS and I wear that as a badge of honor.*

## RELEVANT EXPERIENCE

**Postdoctoral Researcher** June 2022 – Present  
Howard Hughes Medical Institute  
*Matsen Group, Fred Hutch Cancer Center, Seattle, WA*

Used statistical and machine learning models to gain insights into how DNA mutates in B-cells to make your immune system function.

**NSIP PhD Intern (Machine Learning)** Summer 2020 – Summer 2021  
Pacific Northwest National Laboratory, Seattle, WA

Applied machine learning techniques (borrowing heavily from my mathematical background for inspiration) to solve two problems from real-world projects.

**Graduate Teaching Assistant & Course Instructor** Sept 2016 – June 2022  
University of Washington, Seattle, WA

Taught and assisted with the instruction of math classes at all university levels, including delivering lectures and holding problem sessions.

**Lead Teaching Assistant and Instructor** Summer 2016  
SCS Noonan Scholars (previously South Central Scholars), Los Angeles, CA

Independently developed and delivered Calculus II/III content for gifted students from underprivileged backgrounds.

## EDUCATION

**Ph.D.**, Mathematics (Univ. Washington) June 2022  
*Representations and Support for Bosonized Quantum Complete Intersections*

**M.S.**, Mathematics (Univ. Washington) March 2020  
*Schur Duality and Strict Polynomial Functors*

**B.S.**, Mathematics (Univ. Southern California) May 2016

**A.S.**, Mathematics (Citrus College) June 2013

## LEADERSHIP & SERVICE

**Team Co-Leader** September 2021  
*QSIDE Datathon4Justice*, Online

**Math Department Union Steward** Winter 2021 – Spring 2022  
*UAW Local 4121 – Postdocs & Grad Student Union*

**Volunteer Judge** June 2020 & 2021  
*UW Math Hour Olympiad*, Seattle, WA

**Graduate Student Representative** Summer 2019 – Spring 2020  
*University of Washington Math Dept.*, Seattle, WA

**Co-organizer and Mentor** Autumn 2018 – Spring 2021  
*Washington Directed Reading Program*, Seattle, WA