

# Nico Courts

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University of Washington  
Department of Mathematics  
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**OBJECTIVE** To pursue my passion for mathematics and to understand how to better the world through its proliferation and application.

**EDUCATION** **Ph.D.**, Mathematics, September 2016 – June 2021 (expected)  
University of Washington, Seattle, WA

**Bachelor of Science**, Mathematics, May 2016 GPA: 3.83  
*Magna Cum Laude*, Dean's List, Departmental Honors  
University of Southern California, Los Angeles, CA

**Budapest Semesters in Mathematics**, Fall 2015 GPA: 3.90  
Algebraic Topology, Conjecture & Proof, Cryptography, Differential Geometry  
Budapest, Hungary

**Associates of Science**, Mathematics, June 2013 GPA: 4.00  
Key of Knowledge, Dean's list, Honors Program  
Citrus College, Glendora, CA

**RESEARCH  
EXPERIENCE**

*Graduate Reading Courses*

University of Washington, Seattle, WA

- Representation Theory – Prof. Julia Pevtsova – *Winter 2017*
- Cohomology – Prof. Steve Mitchell – *Autumn 2016*

*Math 490 – Directed Research*

University of Southern California, Los Angeles, CA

- **Tools in Modern Representation Theory.** Dr. Paul Sobaje supervised me as I explored some of the techniques used at the frontiers of algebraic research – in particular, techniques that have been recently pioneered in the field of representation theory. I encountered scattered topics in representations, categories, algebraic topology, module theory, Lie algebras, and support varieties. *Spring 2015*
- **Commutative Rings, Fields, and Galois Theory.** Under the direction of Prof. Charles Lanski, I explored topics in graduate algebra with the intent of understanding Galois theory and its applications to solvability using radicals. *Fall 2014*

**TEACHING  
EXPERIENCE**

*Graduate Teaching Assistant*

Autumn 2016 – Present

University of Washington, Seattle, WA

- Participated in several aspects of instruction including demonstration of problem-solving techniques, student evaluation, and the administrative process.
- Math 125 (Autumn 2016), Math 124 (Winter 2017)

*Lead Teaching Assistant*

Summer 2016

South Central Scholars, Los Angeles, CA

- Independently developed and delivered approximately 50 hours of instruction and five exams to gifted university-bound students in calculus 2 and 3.
- Total of 100 contact hours, including daily supervised worksheet sessions.
- Took the initiative to deliver weekly lectures in higher mathematics (number theory, knot theory, differential equations, etc.) along with entry-level problems that allowed students to get a sense of the “flavor” of these fields.

*Various Teaching and Mentorship Positions*

Spring 2012 – Summer 2013

Citrus College, Glendora, CA

- **PAGE Program Tutor.** Assisted a licensed teacher in the education of a class of middle school children intended to reinforce the previous year’s learning and to prevent “backsliding”. Personally instructed a small group of students who were prepared to learn more advanced topics in intermediate algebra.
- **SIGMA Mentor.** Took on a small group of students each semester utilizing a holistic approach to education – supplementing standard tutoring with more in-depth educational guidance and planning.
- **Math Tutor.** Instructed students in the fast-paced Math Success Center where I provided homework help in all math classes through linear algebra and differential equations.

## SKILLS & HOBBIES

*Languages:*

- **English** – This is my native language.
- **German** – Ich kann ziemlich gut Deutsch sprechen, lesen, und verstehen!
- **Hungarian** – Beszélék csak egy kicsit magyarul.
- **Programming** – C++, C#, Java, L<sup>A</sup>T<sub>E</sub>X, PHP, Python.

*Computer Skills:* Web/Application Development, Server Administration, Sage, Mathematica, Windows, Linux, FreeBSD.

*Life Skills:* Critical Thinking, Abstract Reasoning, Communication, Objectivity, Empathy.

*Hobbies:* Hiking, Jogging, Rollerskating, Appreciating the Wonders of the PNW.