

**Henry C. Zelenka**  
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## Education

**Georgetown University**  
*Bachelor of Arts (Anticipated)*

Projected Completion: December 2017  
Washington, DC

- Mathematics and German (Double Major), Economics (Minor)
- GPA: 3.78/4.00 (3.86/4.00 in Mathematics major, 4.00/4.00 in German major)
- *First Honors*: Spring 2016; *Second Honors*: Spring 2015, Fall 2015, Fall 2016
- Completed five-week study abroad program, Trier, Germany, Summer 2016

## Coursework

*Mathematics*: Multivariable Calculus; Linear Algebra; Introduction to Proof and Problem Solving; Abstract Algebra; Ordinary Differential Equations; Complex Analysis

*German*: Text in Context; The Alps in Art, Film, and Literature; Business German; Portraits of the Artist; Revisiting Heimat in Literature and Film; Luther to Lessing; Images of Childhood

*Economics*: Intermediate Microeconomics; Intermediate Macroeconomics; Economic Statistics, Introduction to Econometrics; International Trade; International Finance; Time Series Econometrics; Game Theory

## Experience

**Tutorial: Abstract Algebra II**

Spring 2017

*Independent Study Course with Professor Sara Gharahbeigi*

Washington, DC

- Studying advanced algebraic topics to include Sylow theory, field extensions, and Galois theory
- Holding weekly meetings to discuss targeted concepts and assignments

**Butler Institute for Families, University of Denver**

Summer 2016, 2015, 2014

*Data Assistant*

Denver, CO

- Generated and analyzed child welfare data to assess program efficacy
- Unified various data sets between applications such as Excel and SPSS

**Federal Work Study Program**

Fall 2014, Spring 2015, Fall 2015

*Various Positions*

Washington, DC

- Assisted the library IT department, library front desk and the Department of Public Safety
- Worked 10 to 15 hours per week while maintaining a strong grade point average

## Projects

### **idris-proofs**

[github.com/hzelenka/idris-proofs](https://github.com/hzelenka/idris-proofs)

*Idris*

- Package using Idris, a language with dependent types
- Proves foundational theorems in algebra and related fields such as the division algorithm

### **bertrand-paradox**

[github.com/hzelenka/bertrand-paradox](https://github.com/hzelenka/bertrand-paradox)

*Haskell*

[hzelenka.github.io/posts/2016-10-08-bertrandparadox.html](https://hzelenka.github.io/posts/2016-10-08-bertrandparadox.html)

- Command-line program generating random diagrams to demonstrate the Bertrand paradox
- Leverages Haskell's concision to show result in less than 100 source lines of code

## Skills

Programming Languages: Haskell (advanced), Idris (advanced), C & C++ (intermediate)

Tools: Git & Github, LaTeX, Markdown, Microsoft Office (Word, Excel, PowerPoint), Unix

Foreign Languages: German (Full Professional Proficiency), Spanish (Limited Working Proficiency)

Public policy synthesis and summary