



Nelson David Xunic Cuá

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Education

Berea College

Bachelor of Arts in Mathematics and Computer & Information Science

Berea, KY

Graduation May 2025

Cumulative GPA: 3.4 | Math GPA: 3.9 | Computer Science GPA: 3.6

Awards: Tuition Promise Scholarship

Dean's List: Fall 2021, Spring 2022, Fall 2022

Relevant Coursework: Topology, Real Analysis, Combinatorics, Abstract Algebra, Linear Algebra, Calculus III, Theory of Computation, Operating Systems & VMs, Programming Languages, Computational Complexity & Modeling, Data Structures

Work Experience

Mathematics Teaching Assistant

Berea, KY

Berea College

August 2021 - Present

- Assisted students in various math classes including Combinatorics, Calculus I & II, College Algebra, Trigonometry, and Developmental Math by grading and providing feedback for weekly assignments.
- Offered 5+ weekly office hours to help students understand concepts, gain problem-solving skills, and reach their learning objectives.
- Actively participated in professional development workshops to enhance teaching skills and stay updated on current educational trends.
- Collaborated with professors to develop and update course materials, such as syllabi and handouts, ensuring inclusivity and addressing student concerns effectively.

Open Source Contribution in Runestone

Berea, KY

Berea College

June 2023 - August 2023

- Updated and fixed issues in the existing open-source CS textbooks on the Runestone platform for the Software Design & Implementation & Data Structures courses.
- Revised, submitted, and resolved issues for each of the sections in the new "Open Source: What It Is and How to Contribute" textbook for the Open Source course.
- Gained hands-on experience with Git, issue tracking, code review, open-source licensing, and open-source development.
- Collaborated with team to enhance learning materials and implement workflow best practices.

Mathematics Research Assistant

Berea, KY

Berea College

May 2023 - June 2023

- Worked with a team of students and professors exploring Graph Theory concepts and studying Combinatorial games.
- The results of this research include two new theorems regarding Nim values of the Take-Away game played in tripartite graphs.
- Demonstrated strong problem-solving and critical thinking skills, as well as the ability to work independently and manage time effectively.

Mathematics Research Assistant

Berea, KY

Berea College

May 2022 - June 2022

- Worked with three other students, under Dr. Bouchat's and Dr. Barnard's supervision, to explore Graph Theory concepts and learn methods to prove Graph Theory problems.
- Explored new methods to solve the Graceful Tree Conjecture by investigating the meaning of products of matrices associated with a graph.
- Demonstrated strong problem-solving and critical thinking skills and the ability to work independently and manage time effectively.

Selected Honors and Awards

2022	Scholarship Recipient , CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference	Washington, DC
2019	First Place , National Science Olympiad of Guatemala in Mathematics	Guatemala
2018	Honorary Mention , 5-th Iranian Geometry Olympiad	Remote
2018	Member of the Guatemalan Team , XXXIII Iberoamerican Math Olympiad	Spain - Portugal
2018	Fourth Place , National Science Olympiad of Guatemala in Physics	Guatemala
2017	Member of the Guatemalan Team , XIX Central America and Caribbean Math Olympiad	El Salvador
2017	First Place , National Science Olympiad of Guatemala in Chemistry	Guatemala

Skills

Programming Python, C++, HTML/CSS, Javascript, and LaTeX.

Tools Visual Studio, Pycharm, \LaTeX (Overleaf).

Interests Running, math problem-solving, and broom-making.

Languages English and Spanish