Steven Clontz - Curriculum Vitae

2428 E University Dr. #910

Auburn, AL 36830

http://www.stevenclontz.com

steven.clontz@gmail.com

BIOGRAPHY

Doctoral candidate in Mathematics at Auburn University, studying limited information strategies in topological games.

Strong emphasis on pedagogy and outreach in addition to research.

Has served in a variety of leadership roles, ranging from AU Graduate Student Council President to director of a BSA National Youth Leadership Training camp at age 19.

Interests also include programming, music, entrepreneurship, web development, and puzzle & game design.

EDUCATION

Auburn University (Auburn, AL)

Bachelor of Science in Mathematics (2004-2008)

- ▸ Summa Cum Laude | University Honors Scholar | Dean's Medalist
  Phi Kappa Phi | Phi Beta Kappa
- ▸ Honors thesis on unfoldings of convex polyhedra | Undergraduate Research Fellow

Master of Science in Mathematics (2008-2010)

- ▸ Thesis on stationary subsets of linearly ordered topological spaces (LOTS)

Doctoral Candidate in Mathematics (2010-present)

- ▸ Dissertation being written on limited information strategies in topological games
- ▸ 2013 Fitzpatrick Fellow for Auburn graduate students excelling in the field of topology

RESEARCH

Research interests include set theoretic topology and game theory, particularly using the existence of perfect or limited-information strategies in topological games to characterize topological properties of spaces. Past research has also included polyhedral unfoldings within solid geometry.

Papers

- ▸ *The Edge Unfolding of Generalized Pyramids* (April 2008)
  Undergraduate Honors Thesis, advisor Dr. Andras Bezdek
- ▸ *Applications of Stationary Sets in Set Theoretic Topology* (October 2010)
  Masters Thesis, advisor Dr. Gary Gruenhage

- *Limited Information Strategies for Topological Games* (in progress)
  Dissertation, advisor Dr. Gary Gruenhage

Presentations

- *Limited Information Strategies for Topological Games* (February 2013)
  AU Research Week 2013
- *Mathematics is All Fun and Games* (October 2013)
  AU COSAM Graduate Student Colloquium
- Frequent speaker in AU Set-Theoretic Topology Seminar

Research available online: `http://github.com/StevenClontz/Research`

TEACHING

Courses Taught

- Elementary Algebra
- Calculus I (regular and Honors)
- Calculus II
- Calculus III (regular and Honors)
- Intermediate Euclidean Geometry I (senior-level course)

Student Evaluation Excerpts

`http://www.stevenclontz.com/teaching`

Lecture Notes

Notes for multiple courses released open-source online:

- *University Calculus* by Hass, et al `https://github.com/StevenClontz/HassNotes-10to14`
- *Calculus: Early Transcendentals* by Stewart `https://github.com/StevenClontz/Stewart-12to16`

Private tutoring

For both high school and college students; subjects ranging from ACT/AP preparation, finite mathematics, and Calculus courses.

OUTREACH

A.M.P.'d (Auburn Mathematical Puzzle) Challenge
- Co-created annual puzzlehunt-inspired mathematics competition for 7th/8th grade students in Spring 2012, currently serving as AMP'd Event Director
- Served as writer, director, actor, videographer, and editor for videos featuring the "Auburn Math Police" Commissioner and various villains providing the scenario for the competition, as well as designing all documentation to match the theme
- Wrote several mathematical puzzles (including subjects like graph theory, number theory, game theory, geometry, etc.) to be solved by teams of 6-8 students, exploring Auburn University's campus to present their solutions to mathematics graduate student judges.
- Coordinated a staff of 35 graduate and undergraduate student volunteers along with AU COSAM Outreach leadership.

AU Explore - Math EXPO
- Annual workshop for 5th grade students to play while using and learning mathematics
- Event coordinator for 2013-2014, volunteer from 2009-2012

ADDITIONAL RELEVANT EXPERIENCE

Leadership

- ‣ Eagle Scout (2004)
- ‣ BSA National Youth Leadership Training Camp Director (2006), Staffer (2003-2011)
- ‣ AU Bands Freshman Adviser (2007)
- ‣ Founding member of AU Mathematics Club (2008)
- ‣ AU Bands Webmaster and Graduate Technology Assistant (2008-2010)
- ‣ AU Graduate Student Council President (2011-2012), Webmaster (2010-2011)
- ‣ COSAM Dean Selection Committee graduate student representative (2012-2013)
- ‣ Founding member of DMS Graduate Student Leaders (2013)

Web Development / Entrepreneurship

- ‣ Github: @StevenClontz
- ‣ Developed several CMS-based websites for organizations such as the AU Bands and AU Graduate Student Council
- ‣ Co-developed Puzzle Console web app for the online administration of puzzlehunt competitions
- ‣ Co-founded Teloga, LLC and co-developed Teloga.com Musician Networks website for musician networking and event/ensemble registration for high school and college music ensembles

Puzzle / Game Design

- ‣ Regular organizer of multiple Auburn Puzzle Party puzzlehunt competitions since 2009.

LIST OF SKILLS AND INTERESTS

Mathematics

Set theoretic topology, game theory, graph theory, geometry, calculus, proof techniques

Programming

HTML (HTML5), CSS (LESS, SASS, SCSS), Javascript (jQuery, Coffeescript), PHP (Wordpress, Wolf CMS), Python (Django), Coldfusion (Wheels), Ruby (Rails), SQL, LaTeX, Git, Mercurial

Other

Game design, puzzle design, videography, acting, music, writing

REFERENCES

Available upon request.

CONTACT INFORMATION

http://www.stevenclontz.com | steven.clontz@gmail.com | (256) 508-3864