

JONATHAN PAUL BROWN

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EDUCATION

University of Hawai'i at Mānoa, Honolulu, HI

Ph.D. in Mathematics

In Progress

California State University Stanislaus, Turlock, CA

B.S. in Mathematics

2010

California State University Stanislaus, Turlock, CA

B.S. in Computer Science

2010

Dean's Medal of Excellence

Computer Science Student of the Year

FELLOWSHIPS AND AWARDS

SUPER-M NSF Fellow, University of Hawai'i at Mānoa

January 2012 – Current

Computer Science Student of the Year

2010

AMS Collegiate Problem Solving Competition National Competitor

2009

AMS Collegiate Problem Solving Competition Regional Champion

2009

Innovative Initiator, Hunger Network

2008

CURRENT RESEARCH

Universal Algebra - Finding the upper bound for the number of covering relations in a lattice with n elements, as a function of n

RESEARCH EXPERIENCE

California State University Stanislaus, Turlock, CA

Research Assistant

March 2009 – December 2009

Machine Learning – Create a web site and a user interface for automated testing of the reliability of information on medical websites, algorithm development, and produce reports.

University of Texas, Austin, TX

Research Training Group Participant

Summer 2008

Multi-scale Modeling and Analysis – Implement a novel multi-scale numerical method for stiff equations developed by Dr. Lexing Ying and advanced coursework in: wavelets, fast and multi-scale algorithms for integral equations and transforms, high frequency methods for the wave equations, and stochastic multi-scale modeling.

TEACHING EXPERIENCE

University of Hawai'i at Mānoa, Honolulu, HI

Lecturer – Calculus I & Pre-Calculus

Summer 2011

Develop Syllabus and overall course structure, use custom online course software, and administer all grades.

Lecturer – Pre-Calculus

Fall Extension 2010

Develop Syllabus and overall course structure, and administer all grades.

Teaching Assistant – Calculus I, Calculus II, and Pre-Calculus I

Fall 2010 – Fall 2011

Develop custom online software and overall course structure, and administer all grades for Pre-Calculus I. Develop overall structure for lab/discussion section and custom online course software, as well administer lab grade for both Calculus I and II.

California State University Stanislaus, Turlock, CA

Teaching Assistant – Intermediate Algebra

Spring 2009

Assist students during group work in class.

PRESENTATIONS

- Hawai'i Council of Teachers of Mathematics Annual Conference "Graphing is Good for You!"
Co-Presenter **February 2012**
 Math Ed – An introduction to major theorems in graph theory in a way that can be brought to primary and secondary education.
- Western Business & Management Association International Conference "Disparate Impact: History and Mathematical Implications"
Presenter **January 2011**
 Applied Statistics – Contrast various used standards applied to hypothetical situations in order to demonstrate excessive vagueness in the law.
- Joint Meetings of the AMS/MAA "A Sufficient Condition for the Optimality of Huffman Encoding"
Co-Presenter **January 2010**
 Data Compression – My original proof of the optimality condition, in regards to entropy, for Huffman Encoding.

PUBLICATIONS

- "Targeted Neck Cooling in the Treatment of the Migraine Patient"*
 Hawai'i Journal of Medicine & Public Health **TBP 2013**
- "My First Mathfest"*
 Journal of the Central California Mathematics Project **Fall 2010**

LANGUAGES

- English – native language
 Spanish – speak, read, and write with intermediate competence
 German – speak, read, and write with basic competence

MEMBERSHIPS

- American Mathematical Society

REFERENCES

- Dr. Ralph Freese, Professor
 Department of Mathematics
 University of Hawai'i at Mānoa
 2565 McCarthy Mall
 Honolulu, HI 96822
 (808) 956-9367
- Dr. Edward Hernandez, Professor
 Department of Management, Operations, and Marketing
 California State University, Stanislaus
 1 University Circle
 Turlock, CA 95382
 (209) 667-3752
- Dr. Kenneth Hoover, Assistant Professor
 Department of Mathematics
 California State University, Stanislaus
 1 University Circle
 Turlock, CA 95382
 (209) 667-3266
- Dr. Mirjana Jovovic, Assistant Professor
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 University of Hawai'i at Mānoa
 2565 McCarthy Mall
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Dr. Melanie Martin, Associate Professor
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