

RÉSUMÉ OF QUALIFICATIONS

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Objective

An academic career in teaching and research; research interests are mathematics and computer science in category theory, formal language theory, and abstract algebra.

Education

2014-Present: BS Math/Computer Science (GPA 3.9), Tennessee Technological University, Graduation Date: 05/2018

Relevant Experience

- **Summer 2017: Research Assistant, Center for Research in Extreme Scale Technologies (CREST)**
Assisted with development of the Dynamic Adaptive System for Hierarchical Multipole Methods (DASHMM); responsible for optimizing the memory management scheme by improving the efficiency of the pipeline and designing an abstraction layer to eliminate dependencies on the runtime engine; assisted with integration of DASHMM into Poisson-Boltzman solver.
- **2014-Present: Research Assistant, Dr. David Elizandro, Tennessee Technological University**
Designed and developed sample problems to demonstrate functionality of DEEDS, a discrete event simulation modeling platform; provided the student perspective by assisting with editing several chapters of a manuscript for a discrete event simulation textbook.
- **2014-Present: Teaching Assistant, Department of Computer Science, Tennessee Technological University**
Tutor/Teaching Assistant in topics such as discrete mathematics, automata theory, and discrete simulation modeling.
- **Summer 2016: Software Intern, eviCore Healthcare**
Analyzed and developed software now used as the front-end of their client interface; worked with several Information Technology departments; assisted with design of team management software for internal use; planned and designed company-wide security awareness presentations; helped with database management and server inventory management.
- **2016-Present: Programming Language Development for Latitude**
Designing and developing a general-purpose prototype-oriented programming language; language is currently in an experimental but usable state.

Publications and Books

- DASHMM accelerated Adaptive Fast Multipole Poisson-Boltzman Solver on Distributed Memory Architecture (Publication Pending)
- Performance Evaluation of Industrial Systems (Publication Pending)

Memberships and Activities

- 2014-Present: Former President and current Vice President, Tennessee Tech Functional Programming Club
- 2014-Present: Member, Tennessee Tech Association of Computing Machinery chapter
- 2014-Present: Member, Tennessee Tech Honors College
- 2016-Present: Member, Tennessee Tech Kappa Mu Epsilon chapter