

Description

This resume was submitted by a current PhD student in the department of Scientific Computing. The best way to view this resume is iteratively. All listed experience occurring before May 2019 was successful in helping the student attain an internship through the SULI program at Argonne National Laboratory. All listed experience before January 2020 was successful in helping the student attain a post-undergraduate internship through the ORISE program at Oak Ridge National Laboratory. All experience listed before Fall 2020 can be viewed as helping them attain admission to the Computational Science PhD program here at FSU.

EDUCATION

Florida State University

Ph.D. student in Computational Science

Expected May 2025

Tallahassee, FL

Nova Southeastern University

Bachelor of Science, Major in Computer Science, Minor in Physics

December 2019

Fort Lauderdale, FL

- Cumulative GPA: 3.97

- Honors in Major

KEY SKILLS

Programming Languages: C++, C#, Java

Software: QT, CLion, Visual Studio, IntelliJ, LaTeX, MS Office

RESEARCH EXPERIENCE

Research Aide

January 2020 – May 2020

Oak Ridge National Laboratory (ORNL) – Manufacturing Demonstration Facility (MDF)

Oak Ridge, TN

- Aided in the development of the next generation of large-scale 3D printing slicing software, namely ORNL Slicer 2
- Created a novel method for Skeleton path generation which is used to fill areas with a single path where closed contour paths are not possible
- Designed and implemented Skeletons using Boost Polygon Library's Voronoi Diagram generator in conjunction with Clipper Library for polygon manipulation and Boost Graph Library for Skeleton simplification and path planning
- Consistently utilized Gitflow Workflow for the management of all ORNL Slicer 2 development

Research Aide

May 2019 – December 2019

Argonne National Laboratory (ANL)

Lemont, IL

- Oversaw the development of a secure version of ANL's Hydrogen Refueling Station Analysis Model (HRSAM) in a user-friendly platform, which prevented access to underlying proprietary code
- Developed model as a Web application using the .NET Framework
- Created dynamic-link library to house the model's proprietary functions
- Conducted unit and system testing to ensure application met all specified requirements

PROFESSIONAL EXPERIENCE

Supplemental Instruction (SI) Leader – Physics I

August 2019 – December 2019

Nova Southeastern University (NSU)

Fort Lauderdale, FL

- Identified, selected, and modified resources to meet student's diverse needs and provide weekly instructional sessions
- Planned sessions to provide additional insight into difficult topics covered in class including kinematics, dynamics, work and energy, momentum, rotational motion, gravitation, oscillatory and wave motion, fluid mechanics, and thermodynamics
- Promoted sessions through weekly in-class announcements
- Managed collaborative discussions of course material with students hosted in the course's GroupMe App

Tutor

August 2019 – December 2019

Nova Southeastern University (NSU)

Fort Lauderdale, FL

- Provided tutoring services for a variety of courses in the fields of Computer Science, Mathematics, and Physics
- Discussed learning, test-taking, and studying strategies while assisting with coursework and points of confusion
- Completed Tutor Summary Sheet after each session as well as reviewed and maintained student files

Curriculum Test Developer

June 2018 – September 2018

FJM Technology Consultants

Pembroke Pines, FL

- Designed and developed coding exercises for use in an online C++ course hosted on Udemy with over 105,000 enrolled students
- Engineered coding exercises to demonstrate all integral topics related to the C++ programming language
- Applied Google Testing framework to grade students' code and provide automatic feedback related to accomplishment and improvement on exercises

LEADERSHIP EXPERIENCE

Director of Undergraduate Professional Development

September 2018 – December 2019

NSU College of Computing and Engineering Student Government Association (CCE SGA)

Fort Lauderdale, FL

- Implemented programs to encourage the professional development of undergraduate CCE students
- Administered technical interview series hosted by CCE Professors
- Advocated for and attained approval for the creation of a collaborative study space dedicated to CCE students
- Lobbied for and obtained authorization for the creation of an Instagram page dedicated to the advertisement of CCE events

Resident Assistant

August 2018 – May 2019

Nova Southeastern University

Fort Lauderdale, FL

- Created a sense of community among residents through the administration of community development activities
- Served as a facilitator and mediator for residents in conflict with one another
- Developed an open and genuine personal relationship with each resident to serve as a concerned, non-judgmental peer advisor and mentor
- Acted proactively to avoid crisis situations and responded positively to crisis situations when they did occur
- Educated residents on safety and security issues and reported incidents as they arose
- Encouraged compliance with University policy by discussing and enforcing regulations
- Completed daily and weekly reports on the status of the residence hall and residents

VOLUNTEER EXPERIENCE

Instructor

October, 2018

Ten80 Education Miami STEM Fest

Fort Lauderdale, FL

- Engaged over 1,000 secondary students in the fields of STEM relating to computing and machinery
- Taught students how to construct breadboard circuits capable of encoding digits and characters as binary representations
- Educated students on the science behind breadboard circuits as well as how such devices can be scaled to create more powerful computers

Instructor

September, 2018

Alvin Sherman Library Family STEM Series

Fort Lauderdale, FL

- Engaged children and their families in the fields of STEM relating to space exploration
- Taught children and their families how to construct and use a sun dial made from a single sheet of paper
- Educated children and their families on the science and history behind the invention of the sun dial

CONFERENCES ATTENDED

IEEE SoutheastCon

April, 2019

- ieeesoutheastcon.org

Huntsville, AL

Miami Physics Conference

December, 2018, 2019

- cgc.physics.miami.edu

Fort Lauderdale, FL

PROFESSIONAL AFFILIATIONS

ACM, *Member*

IEEE, *Member*

Alpha Chi Honor Society, *Member*

Phi Kappa Phi Honor Society, *Member*