

Ashley Suh

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EDUCATION

University of South Florida, College of Engineering

Bachelor of Science in Computer Science

Department GPA: 3.8 / 4.0

Minor: Mathematics, 4.0 / 4.0

Unique Computer Science Coursework: Automata Theory, Graph Data Processing, Intro to Artificial Intelligence

Unique Mathematics Coursework: Cryptography and Coding Theory, Probability Theory, Vector Calculus

Expected May 2018

Dean's List Honors

SKILLS

Programming Languages

C/C++

Java

Python

Software/IDE

Processing

Eclipse

Visual Studio

Math Software

MATLAB

Maple

LaTeX

HONORS/AWARDS

Dean's List Honors – Fall 2016 (3.93 / 4.00), Spring 2017 (4.00 / 4.00)

IEEE VIS 2017 Poster – “Driving Interactive Graph Exploration Using 0-Dimensional Persistent Homology Features”

Collaborative Research Experience for Undergraduates (CREU) – Research proposal, “Using Persistent Homology to Drive Interactive Graph Drawing”, selected for funding during the 2017-18 academic school year.

WORK EXPERIENCE

USF Research Experience for Undergraduates

April 2017 – Present

Researches specialized topics in Data Visualization using Topological Data Analysis under Dr. Paul Rosen.

Hillsborough Community College STEM

August 2015 – Present

Programmed interactive online content using *Processing* to encourage mastery in course content as a Supplemental Instructor. Conducted weekly lectures in College Algebra and Precalculus to improve the HCC-USF prep pipeline.

ACADEMIC PROJECTS

Using Persistent Homology to Drive Interactive Graph Drawing

Developed new methods to interactively study and visualize graphs, leveraging Topological Data Analysis to extract 0-dimensional or cluster-like features from data. Collaborated with Dr. Rosen's graduate and postdoc team in the Computer Visualization lab to study and create visualization tools to improve the layout of force-directed graphs.

Discrete Probability Models

Collaborated with finance and business students to analyze, develop, test, and implement various probability models using MATLAB. Project focused on transformations of multivariate distributions and statistical independence.

University Administration Database

Led a team to create a complete administration database using C++ and Linux. Project focused on object-oriented design, inheritance, polymorphism, file I/O, and dynamic memory management.