

Delaney Scheiern

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Education

Colgate University, Hamilton, NY

May 2021

Bachelor of Arts, Computer Science and Applied Mathematics

CS GPA: 3.91, Applied Math GPA: 3.41, Overall GPA: 3.47

- Dean's Award for Academic Excellence with Distinction (Fall 2018, Spring 2019), Dean's Award (Spring 2018, Fall 2019)
- **Coursework:** Numerical Analysis, Real Analysis, Computer Organization and Design, Operating Systems, Discrete Mathematics, Multivariable Calculus, Linear Algebra, Computational Math, Math Modeling, Differential Equations
- **Organizations:** Colgate <Coders> Club, Colgate Data Society, National Center for Women in IT (NCWIT)

University of Wollongong, Wollongong, NSW, Australia

February 2020-June 2020

- **Coursework:** Machine Learning Algorithms & Applications, Statistical Learning, Cryptography

Data Experience

Bluebonnet Data, *Campaign Data Fellow*

May 2020-Present

- Trained on political data methods, such as using VAN, processing census data, and visualizing data with Python and ArcGIS
- Serve as volunteer data analyst for the Daniel Caudill campaign for North Carolina House District 108 in the 2020 cycle
- Provide analyses and insights to help the campaign more efficiently target voters, understand their district demographics, and tell stories using data

Sandia National Laboratories, Albuquerque, NM, *Technical Intern (Security Clearance)*

May 2019-August 2019

- Developed user interface using PyQt5 Python library to support analysis of multi-agent NAVSEA power system
- Improved dynamic loading feature to support various Secure Scalable Microgrid (SSM) configurations
- Implemented Python script with interface to GIS software to automate processing, displaying, and analyzing of data on a map

Technical Projects and Skills

Programming Languages: Advanced-Python, Java, R, MATLAB, LaTeX; Intermediate-SQL, C, HTML, CSS, Git, JavaScript

Comparative Analysis of Dimensionality Reduction Methods, *Independent Project*

June 2020

- Implemented and analyzed performance of various dimensionality reduction methods including Principal Component Analysis (PCA), Kernel PCA, Locally Linear Embedding, and Autoencoders in Python using scikit-learn, TensorFlow, Pandas, NumPy, and matplotlib libraries with analysis written in LaTeX
- Analyzed dimensionality reduction on specific types of manufactured and real datasets to discover under which circumstances certain methods outperform others

Image Classification with Neural Network, *Machine Learning & Algorithms*

May 2020

- Developed fully-connected Autoencoders, Support Vector Machine classifiers, and Convolutional Neural Networks (CNNs) with hyper-parameter tuning in Python using scikit-learn, TensorFlow, and Keras libraries to classify images
- Explored how dimensionality and depth of neural networks affects performance in reproduction and classification of images

Boston Crime Rate Analysis, *Statistical Learning*

April 2020

- Predicted whether a given Boston suburb had a crime rate above or below the median using an analysis of logistic regression and linear discriminant analysis models based on Boston housing and business data in R
- Visualized and conveyed data observations in plain language to help apply data to real-world situations

Tacoma Narrows Bridge Analysis, *Numerical Analysis*

November 2019

- Simulated torsional force of Tacoma Narrows Bridge in MATLAB using iterative methods for solving ordinary differential equations, including Runge-Kutta and Trapezoidal Methods, to explore most extreme environments possible before failure

Leadership and Activities

Rewriting the Code, *Fellow*

August 2019-Present

- Selected consecutive years for nationwide female undergraduate fellowship dedicated to empowering women in technology
- Uplift and collaborate with fellow women in technology through peer mentorship to encourage continuous personal and career skill development

Colgate Cheerleading Captain, *Colgate University*

August 2017-Present

- Created and appointed team leadership board as Captain, including co-Captain, Community Outreach Coordinator, Social Media Managers, Fitness Coordinator, and Social Chair to cultivate strengths of team members and inspire future leadership
- Conceptualized and executed Colgate's first virtual team tryouts, leading to eight new team members
- Led team as captain during team's first NCAA March Madness tournament travel and game experience