GRACE LANG

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EDUCATION

Cornell Tech, New York, NY — May 2022
Master of Engineering in Operations Research and Information Engineering | GPA (out of 4.0): 4.07
Peggy J. Koenig Cornell Tech Fellowship, Merit Scholarship
Relevant Coursework: Applied Machine Learning, Optimization Methods, Modeling Under Uncertainty, Algorithms and Data Structures, Data Science for the Sharing Economy, Building Startup Systems, Learning, Inference, and Decision Making from Data

University of Virginia, Charlottesville, VA — May 2018
Bachelor of Science in Mechanical Engineering | GPA (out of 4.0): 3.83
Honors/Awards: Highest Distinction, Virginia Space Grant Consortium Undergraduate Research Scholarship, Pi Tau Sigma Mechanical Engineering Honors Society, Best Poster Autonomous Electric Vehicle Charging System 2019 Systems & Information Engineering Design Symposium

TECHNICAL SKILLS

Coding Language:	Python, SQL, R, MATLAB, JavaScript, HTML, CSS
Operating Systems:	Windows, UNIX, Linux
Other Tools:	Git, JIRA, Pandas, NumPy, Scikit-learn, Matplotlib, Statsmodels, SciPy

PROJECTS

Lactation Success Machine Learning Project (Python, Pandas, Scikit-learn) — Present
- Analyzing the performance of machine learning algorithms to predict the probability of dairy cows in a commercial dairy farm to complete their lactation cycle based on data obtained during the transition period

Text Based Image Search Engine, (Python, Pandas, Scikit-learn) — Fall 2021
- Developed a machine learning model to predict and rank 20 images that best match an input description
- Utilized processing techniques, machine learning algorithms, and developed a post-processing ranking algorithm

City Bike Data Analysis (Python, Pandas) — Fall 2021
- Modeled the flow of traffic at three city bike stations as Markov chains to understand their stationary distribution

RNA Structure Prediction by Dynamic Programming (Python, Pandas, NumPy) — Fall 2021
- Predicted the secondary structure of RNA sequences using two dynamic programming algorithms
- Compared the performance (accuracy, runtime) of the two algorithms on sequences of various lengths

Studio Project: Local Business Referral Network, (Product Development) — Fall 2021
- Collaborated on a multi-disciplinary team of MBAs and engineers to develop a product to help local businesses hire workers
- Communicated with stakeholders to understand pain-points, ideated, and de-risked the venture through experiments

EXPERIENCE

Appian Corporation, Quality Engineer II, McLean, VA — August 2019-July 2021
- Tested and delivered 10 features that enhanced data visualization and reporting capabilities for the end user
- Investigated, analyzed, and documented software defects to aid in their efficient resolution
- Led all software testing activities on an agile team of developers, product managers, and UX designers
- Trained and mentored two full time engineers and two offshore contractors

UVA Aerospace Research Lab, Undergraduate Researcher, Charlottesville, VA — Sept 2017- May 2019
- Researched and analyzed a high-speed wind tunnel facility to model flow using computational fluid dynamics software
- Presented poster and paper at the Virginia Space Grant Consortium student research conference

The MITRE Corporation, **Mechanical Design Engineering Intern,** Bedford, MA — June 2018- Aug 2018
- Modeled vibrations on an electronic transport case to assess risk to internal equipment

LEADERSHIP/ COMMUNITY SERVICE

Grader ORIE 5751, Learning, Inference, and Decision Making from Data, New York, NY — Present
- Responsible for grading homework and exams for course focused on statistical data analysis

Cornell Tech Admissions Ambassador, New York, NY — Sept 2021-Present
- Speak at Cornell Tech admissions events about my experience in the program and chat with prospective students

Technology Leaders Program, Charlottesville, VA — August 2016- May 2019
- Led problem solving activities, mentored students 1-1, and supported engineering projects at local schools

PUBLICATIONS

Autonomous Electric Vehicle Charging System, 2019 Systems and Information Engineering Design Symposium (SIEDS), Charlottesville VA, USA, 2019

Compressible Flow Simulations for Shock Tube Performance Analysis, Virginia Space Grant Consortium Student Research Conference, Hampton VA, USA, 2019