Connor Adams

Mukilteo, WA

[redacted]

connor.cleeadams@outlook.com

https://github.com/ConnorLAdams

Applied Mathematician

PROFESSIONAL GOAL

Determined and enthusiastic data analyst with close to 3 years of experience in researching and teaching mathematics. Comfortable working with a team in creating and implementing statistical models. Leader of groups that develop and present machine learning models that aid clients in making important business decisions. Also, In-depth knowledge of R, Python, Matlab, SQL, Microsoft Office, and Latex coupled with communication and problem-solving abilities with a proven history in mathematical models research at a graduate level.

EDUCATION

MS in Applied Mathematics 2021 - 2022

Cal Poly Pomona

- Advisor: Dr. Hubertus Von Bremen
- Thesis: "ALASKAN BROWN BEARS AND PACIFIC SALMON FACE THE EFFECTS OF GLOBAL WARMING"

BS in Applied Mathematics 2016 - 2020

Cal Poly Pomona

WORK EXPERIENCE

Golf Shop Assistant/Data Analyst Intern 01/2018 - 11/2021

JC Resorts - Los Serranos Country Club

- Analyzed company sales data and wrote reports for leadership teams in order to assist in financial decisions.
- Developed and implemented data collection strategies by using excel and CPS software.
- Designed an order processing system for optimizing the ordering of certain products.
- Worked closely with team members to deliver project requirements, develop solutions and meet deadlines.

Graduate Teaching Associate 08/2020 - Present

Cal Poly Pomona

- Lecturer for College Algebra and Trigonometry.
- Host activity sections for College Algebra and Introductory Statistics.
- Apply collaborative exercises to accelerate the learning of undergraduate students.
- Establish environments that practice a comfortable and thriving space that allows students the freedom to share and advance their ideas in the classroom.

Substitute Teacher 08/2021 - Present

Chino Valley Unified School District

- Quickly design a lesson and effectively present the information to students.
- Adapt to students learning abilities to ensure the material is absorbed as well as understood.
- Guide and manage students' behavior in the classroom.

PROJECTS

Thesis in Mathematical Modeling 08/2021 - 12/2022

Cal Poly Pomona

Title: ALASKAN BROWN BEARS AND PACIFIC SALMON FACE THE EFFECTS OF GLOBAL WARMING
Supervision: Under Dr. Hubertus Von Bremen
Developed a variation to the competitive predator-prey model for the interactive species; Alaskan brown bears and pacific salmon. Used Regression analysis to infer on and predict river temperatures in Alaska. Incorporated these models to predict the effects of climate change on the brown bear and salmon populations.

Using random forest to predict survivors of the titanic 04/2022 - 05/2022

Kaggle Competition

Constructed a machine learning model using random forest, linear regression, lasso regularization, and k-fold cross-validation to predict if a passenger on the RMS Titanic survived the sinking of the ship or not.

Predicting property prices in Taiwan using machine learning 03/2022 - 04/2022

Cal Poly Pomona

Implemented a machine learning model to predict resident property prices in Taiwan given specific details features of the properties and sales prices of properties sold in the past. LASSO and RIDGE regression were utilized to minimize RMSE while applying a root transformation on the response variable.

Cal Poly Pomona's mandatory mask mandate 02/2022 - 03/2022

Cal Poly Pomona

Organized a strategic method for collecting a sample that answers the client's question, "Is Cal Poly Pomona meeting the mandatory mask mandate in the library." Used hypothesis testing to see if Cal Poly Pomona follows the mask mandate.

Minimum point between two orbits 08/2021 - 12/2021

Cal Poly Pomona

Utilized the steepest decent method to find the minimum distance between two orbits. This was taken a step further by analyzing the hessian which revealed the optimal direction to start the steepest descent when the initial staring values reside on an inflection point.

Solutions of a system with tridiagonal matrix 08/2021 - 12/2021

Cal Poly Pomona

Discovered the closed form for computing the eigenvalues for a specific type of tridiagonal matrix. Explored finding the solutions of a system using Gauss-Elimination w/o pivot, Gauss-Elimination w/ partial pivot, and LU factorization to name a few. Results showed that LU factorization and Gauss-Elimination w/o pivot were the best methods because of their efficiency with large tridiagonal matrices.

Coupled systems oscillators 01/2021 - 05/2021

Cal Poly Pomona

Explored the stability of a single oscillator and coupled system oscillators using MATLAB. Discussed the similarities and differences between the two types of oscillators. Displayed that the coupled system experiences the same stable cycles as the single oscillator.

Logistic equation with delay 08/2020 - 12/2020

Cal Poly Pomona

Research in the stability of logistic equations with delay. Utilized MATLAB to observe solutions and designed plots that revealed when the delayed-logistic equation became unstable. Concluded that the equilibrium of the population is its carry capacity.

SKILLS

Languages	English, Spanish (Novice)
Programming Languages & Frameworks	Python, R, Matlab, LaTex, SQL, HTML, CSS, Tableau
Packages	Pandas, NumPy, Scikit-learn, Tensorflow, PyTorch, Caret, Tidyverse, etc.

EXTRA CURRICULAR ACTIVITIES

1. President of the Society for Industrial & Applied Mathematics, CPP Chapter
2. Graduate Researcher and Research Presenter
3. Kaggle Competitor in Machine Learning