Connor Adams

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Applied Mathematician

SUMMARY

Dedicated and responsive mathematics instructor with 2 years of experience in classroom management, behavior modification and individualized support. Comfortable working with students of all skill levels to promote learning and boost educational success. Serves as role model by using growth mindset to develop young minds and inspire love of learning. Also, In-depth knowledge of MATLAB, R, Pyton, Microsoft Office, and Latex coupled with communication and problem solving abilities with proven history of mathematical models research at a graduate-level.

EDUCATION

MS in Applied Mathematics 2021 - 2022
In-Progress: Cal Poly, Pomona

- Advisor: Dr. Hubertus von Bremen
- Thesis: "Modeling the effects of global warming on Alaskan brown bears"

BA in Applied Mathematics 2016 - 2020
Cal Poly, Pomona

WORK EXPERIENCE

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 which allow students the freedom to share and advance 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 insure the material is absorbed as well as understood.
- Guide and manage students behavior in the classroom.

PROJECTS

Modeling the effects of global warming on Alaskan brown bears 08/2021 - 05/2022
Cal Poly, Pomona
Supervision: Under Dr. Hubertus von Bremen
Research is in applying logistic and age-structured models to the population of Alaskan brown bears to predict the future of this species as the earth's temperature increases.

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

Cal Poly, Pomona

Utilize steepest decent method to find the minimum distance between two orbits. This was taken a step further by analysing the hessian which revealed the optimal direction to start steepest decent 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 there 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. Noticed that the coupled system experiences almost 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 design plots which presented when the delayed-logistic equation becomes unstable. came to the conclusion that the equilibrium of the population is the carry capacity.

SKILLS

Languages	English Spanish (Entry Level)
Programming Languages	Python, R, Matlab, LaTex

EXTRA CURRICULAR ACTIVITIES

1. Current Science Council Representative of the Society for Industrial & Applied Mathematics
2. Graduate Researcher and Research Presenter
3. Teaching Assistant for Statistics