KRISHNA CHEBOLU

 Kirksville, Missouri, USA   614-973-2159   kris.chebo@gmail.com   Krishna Chebolu   Portfolio

Education

University of Missouri-Columbia   **2024 – Present**
Master's of Science in Applied Mathematics   *Columbia, MO*

Truman State University   **2020 – 2024**
Bachelor of Science in Mathematics | Minor in Computer Science   *Kirksville, MO*
Cumulative GPA: 3.93/4.00, Major GPA: 4.00/4.00 | Graduated *Summa Cum Laude*

Research Experience

Geometry Processing at Massachusetts Institute of Technology (Upcoming)   **Summer 2024**

On Nonlinear Time Series Analysis and Climate Variability   **Summer & Fall 2023**
- Designed and conducted a self-driven comprehensive study, reviewing over 150 academic papers and articles.
- Topics include Chaos theory, fractals, state-space reconstruction, and delay-coordinate embedding.
- Acquired proficiency in subject-specific terminology, mathematical techniques, case studies, and seminal works.
- Effectively synthesized and distilled key findings, creating a foundational resource to facilitate newcomers into the field.

Human-Animal Relationships in Maasai Mara Game Reserve   **COMAP 2023**
- Task: Identify alternate ways to manage resources in the Maasai Mara reserve and use math to inform policy changes.
- Built a complex network of human-animal relationships using thirteen variables & six equations.
- Reported 8 policy changes; e.g. for the environment, increasing human settlements is better than letting cattle graze.

Developing a Day-to-Day Trading Strategy   **COMAP 2022**
- Developed a model to buy/sell assets based on only the asset price with transaction fees.
- Optimized model using other price data sets: Ethereum (1400% value gain w/ model), Pfizer (160%), and Gold (130%).

Seeing Where The Real Buzz Might Be   **COMAP 2021**
- Task: Determine which reported sightings of murder hornets deserve resources.
- Used Python to filter data using a point system; decides which report in a list most deserves additional resources.
- Model consistently scored positive cases in the top 10 overall rankings and effectively allocated resources.

Work Experience

Bolton Lab, Washington University at St. Louis   **Present**
Research Intern   *St. Louis, Missouri*
- Involved in a project relating to identifying various Clonal Hematopoiesis biomarkers in genome sequences.

Oklahoma Bombers Financial Operations, The Boeing Company   **Summer 2022**
Finance Intern   *Oklahoma City, Oklahoma*
- Optimized B1, B2, B52, ALCM, & Multiplatform aircraft initiatives by restructuring data for 60+ spending plans.
- Filled knowledge gaps in 20+ reports and spending plans by seeking out Points of Contact and obtaining explanations.
- Saved 100 hours of company time and decreased the time spent generating spending plan reports.

Phantom Works Estimating Department, The Boeing Company   **Summer & Fall 2021**
Finance Data Analysis Intern   *St. Louis, Missouri*
- Conducted a comprehensive regression and sensitivity analysis on 18 Cost-Estimating Relationships (CERs).
- Boosted accuracy by over 20% on average by generating 60-70 alternates; 3 CERs had a 50% boost.
- Synthesized and presented findings to management for further research– continued by full-time employees.

Residence Life, Truman State University   **2022 – 2024**
Assistant Hall Director, Ryle Hall – 2023 - 2024   *Kirksville, Missouri*
- Oversaw the dorm reception desk, directing 6000+ packages annually and supervising 24 desk workers.
- Mentored dorm RAs, aiding their professional development and assisting in handling resident concerns and conflicts.
- Managed all facets of the residence hall, from general student welfare to building-wide facilities concerns.

Resident Advisor, Missouri Hall – 2022 - 2023

- Cultivated relationships and fostered growth amongst 50+ university students through study groups and programming.
- Directed programs on safer drinking practices, time management, and interrupting oppression for 50+ students.

Department of Mathematics   2021 − 2022
Tutor/Teaching Assistant for Dr. Anthony Vazzana   *Kirksville, Missouri*
- Tutored a pilot mathematics class of 30 students, MATH 288: Quantitative Reasoning.
- Textbook used: *Excursions in Modern Mathematics*, 9th edition, by Peter Tannenbaum.

Projects

SurfNote   Spring 2024
- Built a Google Chrome extension for note-taking while surfing on the web. Available on the webstore.

WorldNews, An Immersive Map-Based News Application   Fall 2023
- Designed and built a web application to obtain top worldwide news as custom markers on a map.
- Integrated Google Maps API, Google Street View API, and Aylien News API into a .Net framework.

Selected Talks & Presentations

2024	Foundations of Nonlinear Time Series Analysis, *American Mathematical Society Spring, U of Wisconsin-Milwaukee*
2023	On Nonlinear Time Series Analysis & Climate Variability, *Mathematics Capstone Seminar, TSU*
	Human-Animal Relationships in Maasai Mara Game Reserve, *Student Research Conference, TSU*
2022	Tea Time with Sue: Krishna Chebolu, Episode 4, *University talk show with university president Dr. Susan Thomas*
	Developing a Bitcoin and Gold Portfolio Manager, *Student Research Conference, TSU*
2021	Seeing Where the Real Buzz Is, *Student Research Conference, TSU*

Awards & Honors

2024	Symposium on Geometry Processing Travel Grant, Massachusetts Institute of Technology
	Graduation Speaker for the Center for Diversity & Inclusion, TSU
2023	Bulldog B.I.T.E. Business Pitch Competition 2nd Place Winner, TSU
	Outstanding Residence Leadership for Exceptional Service to the University Community, TSU
	Top Presenter, University of Northern Iowa
2022	The Boeing Scholarship for Mathematics, Statistics, and Computer Science, TSU
2021	The Boeing Scholarship for Mathematics and Computer Science, TSU
	Dr. Susan LaGrassa Scholarship for Mathematics, TSU
2020	President's Honorary Scholarship for Full Tuition, TSU

Recurring

2020 - 2024	President's List for Academic Excellence, TSU
2021 - 2023	Successful Participation in the Consortium for Mathematics and its Applications

Works

2023	On Nonlinear Time Series Analysis and Climate Variability	Literature Review

Skills

Technical: Python, LaTeX, C++, Adobe PhotoShop, Microsoft Excel, GAP, JavaScript, CSS, HTML
Libraries & Frameworks: NumPy, Pandas, PuLP, STL, Scikit, React Native
Languages: Fluent Hindi, Conversational Telugu, Intermediate Japanese

Leadership & Service

Phi Beta Kappa: Inductee	2024 - Present
American Mathematical Society: Sponsored Member	2023 - Present
South Asian Student Union: Founding President and Treasurer	2023 - 2024
Student Government: Voting Senator, Environmental Affairs	2020 - 2022
Namaste Nepal: Coordinator	2021 - 2023
African Student Association: PR Chair and Webmaster	2021 - 2023