Charles Kolozsvary

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EDUCATION

University of Massachusetts Amherst   **Amherst, MA**
- B.S. in Mathematics and Computer Science (GPA: 3.86) *Graduated with Honors*   August 2020 – May 2024
- Relevant Coursework: Algorithms for Data Science, Machine Learning, Intelligent Visual Computing

TECHNICAL SKILLS

Programming: C, Java, Python, MATLAB, R, JavaScript, Swift
Software: Microsoft Office, Git, LaTeX

EXPERIENCE

Li Research Group, UMass Amherst Department of Statistics and Mathematics   **Amherst, MA**
Undergraduate Researcher   June 2022 – August 2022
- Published research as a co-author on "Artificial Neural Network Prediction of COVID-19 Daily Infection Count" in the *Bulletin of Mathematical Biology*, DOI: 10.1007/s11538-024-01275-3
- Developed a regularized backcasting program in MATLAB to deconvolve fatal infections from reported COVID-19 deaths and the infection fatality ratio
- Collected and preprocessed literature data from individual U.S. states and territories, and analyzed trends in testing irregularities

GoPeer   **Virtual**
Online Tutor   September 2022
- Taught middle and high school students Python and Java syntax and semantics, probability and combinatorics, and pre-algebra from independently designed lesson plans
- Maintained a 97% satisfaction rating from over a dozen hour-long, one-on-one tutoring sessions

PROJECTS

SET Card Game Solver using OpenCV and Streamlit   tinyurl.com/4wju3x7r
- A Python script that plays the *Set* card game   github.com/charlesk26/SetCardGameSolver

Die Agony Jane Street Puzzle Solution   tinyurl.com/ycy2nkrr
- A Python script that finds the sum of the values in the unvisited squares   github.com/charlesk26/DieAgony

'Lesses More' Jane Street Puzzle Solution   https://tinyurl.com/32kfdpyy
- A C script that finds the desired optimal quadruple   github.com/charlesk26/LessesMore

LEADERSHIP & COMMUNITY INVOLVEMENT

UMass Amherst Residential Life   **Amherst, MA**
Resident Assistant   August 2023 – May 2024
- Mediated residential life incidents through conflict resolution techniques, documented policy violations, and planned community-building events for over 200 students
- Supported 30 assigned residents through regular check-ins to address their individual concerns and promote well-being

UMass Amherst Department of Statistics and Mathematics   **Amherst, MA**
Mathematical Modeling Group Project Leader   February 2022 – May 2022
- Directed presentations on the performance of several statistical models and techniques, including logistic and linear regressions, decision trees, random forests, k-nearest neighbors, k-means clustering, and principal component analysis
- Researched topics and data sources for six projects and coordinated regular progress review meetings

UMass Amherst Department of Music and Dance   **Amherst, MA**
Baritone Saxophonist   September 2022 – December 2022
- Performed and rehearsed for over five hours each week with the seven-time Best Collegiate Studio Orchestra and three-time Best Blues/Pop/Rock Ensemble recognized by *DownBeat* magazine

Princeton Adult School   **Princeton, NJ**
Guide & Technology Assistant   October 2018 – March 2020
- Assisted teachers by preparing and troubleshooting classroom tools, such as projectors and personal computers, supporting up to 20 concurrent classes per season
- Clarified class schedules and provided directions to students