LEO PHILIP PEREGRINE BELL

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EDUCATION

MAS Applied Statistics 2022-2024
Pennsylvania State University, University Park, PA 3.81/4.0
Eberly College of Science
Relevant coursework: Data Mining, Functional Analysis, Regression Methods, ANOVA/ANCOVA, Machine Learning, Measure Theory, Linear Algebra, Sampling Methods

BS Mathematics, B.S. Economics 2019-2023
Pennsylvania State University, University Park, PA 3.73/4.0
Liberal Arts, Eberly College of Science
Relevant coursework: Classical analysis, Complex Analysis, Ordinary and Partial Differential Equations, Probability Theory & Mathematical Statistics, Game Theory, Computational Economics, Mathematical Logic & Foundations

TECHNICAL SKILLS

Data Analysis and Statistics: Time Series, Panel Data, ANOVA/ANCOVA, Machine Learning, Monte Carlo Methods
Programming: Python, R/RStudio, SAS, STATA, LaTeX,

EXPERIENCE

United States Department of Defense, Huntsville, Alabama: Operations Research Anaylst 2024 - Present
- Active GS team member of Army Materiel Command Strategic Analytics Group
- Multiple-factor analysis projects across large-scale army systems for direct support of the commanding general leveraging. Core part of a development team for a user interface on various allocation projects utilizing various data cleaning and allocation optimization techniques in Python. Implemented user-facing interface allowing for changing of weights and a data quality "tiering" system within model in Palantir Foundry software
- Leveraged PyTorch for various proprietary image recognition projects
- Involved in exploratory investigation into synthetic data army use-cases
- Regular engagement with army systems and structure, most projects involved a significant degree of interaction with high-ranking military officals

Penn State Department of Statistics, University Park, PA: Statistical Consultant 2023-2024
- Provided statistical support for various other-departmental graduate students, professors, and researchers
- Presented results and questions to faculty mentors and other students in a twice a week seminar-style ”consultant meeting” to get guidance for our own clients as well as provide support for other consultants

Penn State Department of Economics, University Park, PA: Tutor Aug 2022 – Dec 2023
- Official departmental tutor for the core intermediate microeconomics and macroeconomics courses

New Paradigm Controls, Milton, PA: Engineering Intern August 2018 – May 2019
- Assisted in design and testing of flame-lamination machine safety components.
- Engineered measurement system for tension control devices.
- Coded and implemented a self-regulating tension monitor to install on spooled-material tension control devices.

PROJECTS

Perplex Numbers and Applications - Link Fall 2022
Comparsion of perplex number system the complex number system.
- Major results from real analysis, complex analysis, (possibly lack of) analogues in the perplex number system.
- Deep investigation into the failure of the fundamental theorem of algebra to hold in the perplex numbers.

Logistic Regression + Naive Bayes Classification Implementation - Link Fall 2023
Manual coding and implementation of Gradient Descent and Naive Bayes Classifier methods on E-Coli data

OTHER INTERESTS

Fencing, Swimming, Literature & Literary analysis (*take a look at a* sample), Bass Guitar