Luis Castellanos

github.com/luiscastelds

my website: luiscastelds.github.io

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Education

Purdue University — West Lafayette   Aug. 2021 — Dec. 2025
B.S. in Mathematics & B.S. in Data Science   *West Lafayette, IN*

Relevant Coursework

Mathematics: Discrete Math, Modern Algebra, Complex Analysis, Real Analysis, Intro to Fourier Analysis, Ordinary Differential Equations, Stochastic Processes

Data Science / Computer Science: Data Mining and Machine Learning, Linear Programming, Data Structures and Algorithms, Foundations of Computer Science, Intro to AI, Intro to Data Science, Large-scale Data Analytics, Problem Solving and object oriented programming, Data Science Capstone

Statistics: Intro to Probability Theory, Statistical Theory

Projects

Java Marketplace Program   Java, OOP, Swing, Serializable
- Group project where I developed most if not all of the backend for a marketplace.

Homelab Server Deployment   Linux, CasaOS, Networking
- Built a personal homelab running Ubuntu Server for self-hosting files and old movies laying around.
- Configured CasaOS apps for self-hosted applications (Plex, Gaming-Servers, monitoring dashboards, ollama).
- Implemented SSH remote access with tailscale.

Carcassonne Markov Chain Model   Python, NumPy, Stochastic Processes
- Modeled board game tile draws with discrete-time Markov chains to analyze strategies from the game.
- Analyzed transition matrices, states spaces, etc.

Personal Website   Jekyll, GitHub Pages
- Developed a personal academic site hosting my CV and my notes for my academic courses.
- Styled site with responsive layout, improving readability and structure for peers.

Technical Skills

Programming: Python (NumPy, pandas, scikit-learn, Matplotlib, plotnine), Java (Swing), R, Matlab, LaTeX
Data/ML: Supervised & unsupervised learning, PCA, regression, model evaluation, Data Visualization, Optimization
Tools: Git, Jupyter, GitHub Pages, MySQL, PyTorch
Languages: Spanish (native), English (fluent/bilingual), German (beginner)

Certifications / In Progress

Google Analytics: Foundations, Data, Data, Everywhere (in Progress)
Amazon: Getting Started with AWS and Data Analytics (in progress)

Additional

Please go checkout my website where you'll learn more about me and the projects I've worked on.