Knoelle C. Grassi
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SUMMARY

Data Analyst with strong quantitative training in Applied Mathematics and hands-on experience in Python, SQL, Tableau, Power BI, and statistical modeling. Skilled in cleaning, analyzing, and visualizing large datasets, building forecasting and predictive models, and developing automated reporting workflows. Adept at transforming complex data into clear, actionable insights that support operational, financial, and strategic decision-making. Known for strong analytical skills, attention to detail, and the ability to learn new tools quickly.

EXPERIENCES

Spirit Halloween

Sales Associate, October 2025 – November 2025

- Used customer insights and product knowledge to maximize sales and recommend related items
- Supported inventory accuracy and store merchandising
- Strengthened communication and customer interaction skills in a fast-paced environment

The Whiting-Turner Contracting Company

Intern, May 2025 – August 2025

- Created KPI summaries and automated reporting workflows using SQL, Excel, and Power BI
- Designed dashboards for leadership visibility

Rick's Ranchwear, Inc.

Receiving Clerk, June 2021 – August 2024

- Assisted Vice President, Logistics Manager, and Logistics Coordinator
- Created Excel reports on top sellers, inventory, and logistics metrics
- Used company software to generate logistics reports and process Amazon orders
- Supported business operations for logistics and inventory teams

SKILLS

- Java, Python, C, C++, MySQL, Pandas, NumPy, Power BI, Tableau, Excel, PivotTables, VLOOKUP, Index, Match, R, MATLAB, Datagrip, SQL, Jupyter, LaTex
- Data cleaning, data modeling, ETL pipelines, forecasting, probability modeling, algorithm development, visualization, dashboarding
- Team Collaboration, Problem-Solving, Communication, Time Management, Mathematical Proficiency, Database Design

EDUCATION

Florida Polytechnic University, Lakeland, Florida

Bachelor of Science in Applied Mathematics (August 2025)

PROJECTS

Florida Polytechnic University, Lakeland, Florida

Predictive Crime Analysis Model (Capstone Project) *(August* 2024 – *May* 2025)

- Built a statistical probability model in Python to estimate crime event likelihood across time and location using historical police datasets
- Developed probability algorithms for event frequency and type prediction
- Integrated AI-generated predictions with custom probability calculations to evaluate accuracy and model reliability

Wildlife Data Warehouse & Tableau Insights (May 2025)

- Designed a full data warehouse integrating species, environmental, trade, and geographic datasets
- Created Tableau dashboards modeling species distribution, environmental conditions, and trade activity
- Identified ecological patterns that highlighted high-risk regions for species movement and conservation focus

Rössler System Modeling & Bifurcation Analysis *(November 2024)*

- Modeled nonlinear chaotic systems and evaluated stability conditions through parameter variation
- Identified bifurcation points and validated critical parameter values against numerical solutions
- Produced plots, simulations, and mathematical analysis used to support academic reporting in MATLAB

Dirichlet Boundary Value Problem Solver (November 2024)

- Solved multi-region Dirichlet problems using harmonic functions and conformal mapping
- Derived analytic solutions via complex logarithms and argument functions
- Visualized isotherms and heat flux using MATLAB and Python

Hurricane Evacuation Route Optimization (May 2024)

- Built a traffic optimization model using the Frank-Wolfe algorithm
- Implemented convex optimization using Python, TensorFlow, and PyTorch
- Created custom route data structures and validated algorithm performance

Game Analytics Database System (November 2024)

- Designed and implemented a relational database supporting user activity tracking and quiz performance analytics
- Developed SQL queries for score tracking, usage patterns, and trend reporting

The Fourier Analysis Final Project (November 2024)

- Applied FFT-based high-pass filtering to remove low-frequency noise from audio signals
- Analyzed signal behavior in time and frequency domains
- Optimized filter length via coefficient thresholding