William C. Gillette

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Professional Summary

Data scientist with a strong foundation in Python, R, and full-stack development, specializing in automated analytics and intuitive application design. Proven ability to balance technical rigor with leadership and time management as a year-round student athlete. Recognized by colleagues as a reliable, driven contributor and trusted "go-to" resource across academic and professional settings.

Education

Johns Hopkins University, Baltimore, MD
Master of Science in Data Science: Concentration in AI & Machine Learning   GPA: 4.0/4.0   Expected May 2027
Ursinus College, Collegeville, PA
Bachelor of Science - Triple Major: Computer Science | Statistics | Mathematics   GPA: 3.99/4.0   Dec 2024

Skills

Modeling Domains: Time Series, Digital Signal Processing, Natural Language Processing, Computer Vision, Graphs & Networks
Statistical Modeling: Generalized Linear Models, Bayesian Networks, Gaussian Mixture Models, Hidden Markov Models, Causal Impact
Machine Learning: Supervised (Random Forest, SVM, Logistic Regression), Unsupervised (K-Means, PCA), PyTorch (CNN, RNN, LSTM)
Data Analysis: Data wrangling, feature engineering, visualization (PowerBI, Tableau), metrics (Precision, Recall, MSE, R^2)
Full Stack Development: JavaScript (React/Redux, Node.js), HTML/CSS, Bootstrap 5, REST APIs, OOP, responsive design
Project Management: Agile, Scrum, SDLC, requirements gathering, UAT, Documentation

Independent Research and Projects

- Physical Activity During the COVID-19 Pandemic   *(RStudio · Causal Inference · BSTS Models)* Oct 2024-Dec 2024
  - Conducted a causal impact analysis using IHME data and Bayesian Structural Time Series models to assess age-related physical inactivity and cardiovascular disease prevalence
  - Compared elderly and young adult women in California and Florida, factoring in stringency indices and DALYs
  - Found increase in CVD prevalence in Florida (p=0.002) and decline in California DALYs (p=0.031) during the pandemic
- Evaluating the Sensitivity of the Housing Market   *(RStudio · Regression · Macroeconomics)*   Feb 2024 -May 2024
  - Identified macroeconomic drivers of housing prices and assessed their stability during economic crises
  - Applied Bayesian regression with LOO cross-validation and residual diagnostics to evaluate model fit and assumptions
  - Corrected violations in linearity and homoscedasticity, revealing inflation, unemployment, and population growth as the top influential factors
- Ursinus College Degree Builder   *(React/Redux · SQL · Node.js · Bootstrap)*   Jan 2023-May 2023
  - Led Agile SDLC process as Scrum Master, overseeing requirements gathering, documentation, UAT, and debugging
  - Conducted weekly standups to track Gantt chart progress and ensure timely delivery of action items
  - Deployed a full stack React web app with SQLite backend, creating an intuitive academic planning tool for students
- Large Scale Audio Version Identification   *(PyTorch · Numpy · Deep Learning)*   Jan 2022-May 2022
  - Addressed the challenge of automatic audio version identification using supervised deep learning techniques
  - Engineered self-similarity matrices from the Da-TACOS dataset for input into a convolutional neural network
  - Ran scalable experiments to evaluate cover song identification strategies, optimizing for accuracy and generalization

Experience

- *Technical Delivery Analyst, Contingent Workforce Solutions, Computer Aid Inc. (CAI)*   Feb 2025-Present
  - Partnered with cross-functional teams to support implementation and analytics for public sector contracts
  - Redesigned quarterly customer reporting using Power BI to deliver actionable fiscal year spending insights through intuitive dashboards
  - Automated contract renewal and timesheet workflows through VBA scripting, streamlining business processes
  - Built and maintained BI reports within vendor management systems to reflect organizational changes across user, contingent, and SOW data
- *Data Analyst Intern, Neurodiverse Solutions, Computer Aid Inc. (CAI)*   Jun 2024-Aug 2024
  - Engineered and analyzed performance metrics to evaluate program effectiveness and deliver actionable insights for enhancing customer experience
  - Led daily Agile standups to assess progress, challenges, and align cross-functional requirements
  - Compared current performance metrics to Bureau of Labor Statistics industry standards
- *Lead Tutor, Computer Science | Mathematics | Statistics, Ursinus College*   Sep 2021-May 2024
  - Onboarded and mentored new tutors, contributing enhancement insights to improve program structure and delivery
  - Developed personalized learning strategies tailored to individual student needs and styles
  - Evaluated academic progress of 40+ tutees and delivered performance assessments for instructional alignment

Awards and Honors

- Salutatorian, Ursinus College Class of 2025
- Best Data Visualization, DataFest Philly (2024) – selected by three American Statistical Association staff members
- Faculty Prizes: Mathematics (2024), Promising Sophomore in Computer Science (2022)
- Upsilon Pi Epsilon, International Honor Society for Computing – elected chapter president (2023)
- Kappa Mu Epsilon, National Mathematics Honor Society (2023)
- NCAA Division III All-Academic, Cross-Country Metro Region (2023)

Community Service, Extracurriculars, and Leadership

- Inclusive Data Science Initiative for Research and Innovation, Ursinus College
- Phi Kappa Sigma International Fraternity: Academic Chair (2021-2023), Historian (2021), Parliamentarian (2021), Men of Honor Leadership Institute (2022-2023)
- Community Service: Leukemia & Lymphoma Society, American Foundation for Suicide Prevention, Special Olympics
- Hispanic Alliance for Career Enhancement (HACE)
- NCAA Division III Athlete - Cross Country and Track & Field