

# William C. Gillette

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## Professional Summary

Highly motivated problem solver with excellent communication skills. Eager to apply and grow my statistical/data analysis and technical skills with Python, Java, web development, and software engineering to develop intuitive applications and automated analyses. Proven ability to manage time and multiple priorities as a year-round student athlete. Recognized by leaders as driven and responsible by selection to leadership positions. Described by peers as a mentor and “go-to” resource.

## Education

**Ursinus College, Collegeville PA** | Recipient of Ursinus Gateway Scholarship

**BS, triple major: Computer Science | Statistics | Math**

**GPA: 3.99**

**ANTICIPATED MAY 2025**

**University of Michigan - Coursera**

**Dec 2020-Jun 2023**

Computer Science and Data Analytics, self-initiated study earning 16 certifications

## Skills

*Programming Lang/Web Dev:* Python, JavaScript, Java, SQLite, SAS, HTML, CSS, React.js, Node.js, Lua, C++, R

*System:* Data Structures, DB Integration, OOP, Webservices (SOAP, REST), Redux.js, Express.js, PyTorch, Reactstrap, Visual Studio

*Analysis:* Statistical, Data, Linear and Multiple Regression, Google Data Analytics, Calculus (I-IV), Linear Algebra, Abstract Algebra

*System Dev:* Requirements, System Analysis, System/Software Design, Testing, Debugging, Documenting (Code, End User)

*Project Management:* Agile Methodology, Scrum Master, System Development Life Cycle (SDLC)

*Other:* Leadership, Team Management, Collaboration, Teamwork, Communication (Oral, Written, Presentation), Time Management

## Independent Research and Projects

- [Degree Builder for Ursinus College Students](#) Jan 2023-May 2023
  - Scrum Master, developed a user-friendly tool to fulfill students' need for an intuitive, comprehensive college career and academic planner
  - Planned, built, and executed a JavaScript web application. Employed Agile and SDLC to manage project through all phases (requirements gathering, key documentation, user acceptance testing (UAT), debugging and training)
  - *Skills/Technologies:* Reactstrap · Node.js · CSS · SQLite · HTML · React.js · Redux.js · Express.js
- Validity of SAT Score as a Predictor of College Success Jan 2023-May 2023
  - Conducted statistical analyses in 30-page research paper, and provided to professor to support her research
  - *Skills/Technologies:* Data Analytics, Linear and Multiple Regression Analyses, Chi-Squared Analysis, Python, R
- [A Data-Driven Approach to Structure-Based Large Scale Audio Version Identification](#) Jan 2022-May 2022
  - Tackled music information retrieval problem of automatic audio version identification
  - Utilized machine learning to transform datasets of songs into “self-similarity matrices”
  - Performed supervised & unsupervised experiments to find most accurate, scalable cover song identification strategies
  - *Skills/Technologies:* PyTorch · Machine Learning · Python
- [Convex Hull Visualization](#) (Practical applications: collision avoidance of particles, traffic, etc.) Apr 2021-May 2021
  - Enabled the automated generation of 2D or 3D convex hulls from a set of 2D points
  - Developed web-based modeling application to convert points by applying “geometric lift” using a convex function
  - *Skills/Technologies:* JavaScript · Node.js · CSS · HTML · Express.js

## Experience

- Lead Tutor, Computer Science | Math | Statistics, Ursinus College Sep 2021-present
  - Promoted to Lead Tutor, Sept 2022, due to demonstrated leadership and proven excellence as Tutor
  - Onboarded and mentored new tutors; Evolved program by providing enhancement insights to manager
  - Developed strategies and adapted teaching to meet individual needs/learning style
  - Evaluated tutees and provided assessment to professors
- Student Representative, Computer Science Principles Professional Training, Code.org Jul 2023-Jul 2023
  - Provided input in workshops for high school computer science teachers
  - Partnered to develop and present/deliver lesson on routers and redundancy

## Relevant Coursework

*Computer Science (focus of Software Engineering):* Database Design, Software Engineering, Object Oriented Programming (OOP), Computer Architecture & Organization, Computer Graphics, Data Structures & Algorithms, Theory of Computation, Python

*Mathematics (focus of Business & Industry):* Linear Algebra, Calculus I-IV, Discrete Math, Abstract Algebra, Real/Numerical Analysis

*Statistics:* Applied Regression Models, Computational Statistics, R Lab, Math Statistics, Statistics I and II

## **Awards and Honors**

- Upsilon Pi Epsilon International Honor Society for Computing (2023) – elected President by Computer Science faculty
- Kappa Mu Epsilon National Mathematics Honor Society (2023)
- Mathematics and Computer Science Faculty Prize for Promising Sophomore (2022)
- Phi Kappa Sigma Hezman Award (2022) – Exemplifying 7 Core Values of the Fraternity
- Centennial Conference Student Athlete Academic Honor Roll / Dean's List (2022)

## **Community Service, Extracurriculars, and Leadership**

- President, Upsilon Pi Epsilon International Honor Society for Computing (2023-present)
- Vice President (2022-present) & Treasurer (2020-21), Computer Science & Robotics Club
- Graduate, Phi Kappa Sigma Men of Honor Leadership Institute (2021-22)
- Academic Chair (2021-present), Historian (2021), & Parliamentarian (2021), Phi Kappa Sigma International Fraternity
- Leukemia & Lymphoma Society, American Foundation for Suicide Prevention, Special Olympics – fundraising, event support
- Division III Cross Country, Division III Track & Field
- Hispanic Alliance for Career Enhancement (HACE)