

SAN SAN BLAIN

sblain@pointloma.edu

MATH AND DATA SCIENCE INSTRUCTOR

Outcome-oriented mathematics, data science and development professional recognized for integrating various components of data science to deliver knowledge-based solutions for real-world challenges. **Experienced classroom and distance education instructor.** Recognized ability to leverage data-driven insights to design and implement scalable learning solutions that enhance learner engagement and productivity. Proficient in evaluating data management methods and technologies to enhance the integrated use of both public and private data sources.

AREAS OF EXPERTISE

ER Diagrams ♦ Data Wrangling ♦ Data Cleansing ♦ Data Visualization ♦ Database Schemas ♦ Data Audit Documentation ♦ Linear Regression ♦ Logistic Regression ♦ Imputation Methods ♦ ETL ♦ Analytics Coding ♦ Debugging ♦ Software Integration ♦ Version Control ♦ Level II Support ♦ Infrastructure Public Speaking ♦ Ethical Research Practices ♦ Collaboration ♦ Classroom Instruction PeopleSoft ♦ PowerSchool ♦ Google Classroom ♦ Brightspace ♦ Canvas

<u>Programming:</u>	Python, R, SAS, SQL
<u>Data Manipulation & Analysis Libraries:</u>	NumPy, Pandas
<u>Machine Learning Libraries:</u>	Scikit-Learn
<u>Natural Language Processing (NLP) Library:</u>	Natural Language Toolkit (NLTK)
<u>Integrated Development Environments (IDEs):</u>	Jupyter Notebooks
<u>Data Visualization Tools:</u>	Matplotlib, Seaborn, Tableau
<u>Business Intelligence Tools:</u>	Crystal Reports, Business Objects

EDUCATION & CERTIFICATION

Master of Science, Data Science • NATIONAL UNIVERSITY–SAN DIEGO, CA 10/2024
Master of Music, Music Performance • SAN DIEGO STATE UNIVERSITY–SAN DIEGO, CA
Master of Education, Education: Mathematics • UNIVERSITY OF CALIFORNIA–LOS ANGELES
Bachelor of Science, Applied Mathematics: Computing Specialization • UNIVERSITY OF CALIFORNIA–LOS ANGELES

WORK HISTORY

Adjunct Professor | POINT LOMA NAZARENE UNIVERSITY–SAN DIEGO, CA 08/2026 – Present

- Instruct in-person undergraduate students in College Algebra.
- Establish syllabus requirements per university standards.

Adjunct Professor | NATIONAL UNIVERSITY–SAN DIEGO, CA 10/2025 – Present
COLLEGE OF BUSINESS, ENGINEERING & TECHNOLOGY

- Instruct online/hybrid undergraduate and graduate students in Calculus 1 & 2, Probability and Statistics, Linear Algebra, and Data Management for Analytics.
- Establish syllabus requirements per university standards.

Educator | SAN DIEGO UNIFIED SCHOOL DISTRICT– SAN DIEGO, CA 01/2009 – 05/2025

- Led Common Core Mathematics in grades 6-12, using educational technology.
- Handled all administrative functions including grading, communications, attendance and parent conferencing.
- As itinerant music teacher instructed orchestra for 500+ 4th & 5th grade students at 10 school sites per week.
- Taught musical concepts to deaf and hard-of-hearing students; featured on a local news station for innovative music education.

Professional Instructor | BERTRAND'S MUSIC ENTERPRISES—SAN DIEGO, CA 05/2025 – Present

- Give private lessons in clarinet and oboe.
- Teach technique, theory, how to read music, proper sound production, embouchure and instrument care.
- Instructed students on proper etiquette as a performer and as an audience member.

PROJECTS

Data Science Class Projects

07/2023–09/2024

NATIONAL UNIVERSITY–SAN DIEGO, CA

Development and Management of Relational Databases and Data Marts

- Created and managed Oracle relational databases, star schemas, and data marts.
- Implemented Jupyter Notebooks for code development and documentation.
- Utilized NumPy and Pandas for efficient data manipulation.
- Used imputation methods for data wrangling.

Predictive Modeling with Python, R, and SAS

- Developed predictive models using Python, Scikit-Learn, R, and SAS.
- Applied regression analysis and cross-validation techniques.
- Analyzed large healthcare datasets from the CDC to identify patterns and correlations using SAS and Excel.

Data Visualization, Statistical Analysis, and Reporting of Healthcare Data

- Developed visualizations using Matplotlib and Seaborn to communicate insights.
- Conducted audit report and analysis using “proc eyeball,” top/bottom X%, interquartile range, clustering, and statistical techniques in SAS, R, and Excel.
- Leveraged NumPy and Pandas for effective data handling and preparation

RELATED WORK HISTORY

Systems Analyst / Sr. Programmer / Computer Applications Analyst

(6 years)

DATA SYSTEMS AND SOLUTIONS, JOINT VENTURE OF SAIC AND ROLLS-ROYCE–SAN DIEGO, CA | NETRIX CORPORATION–HERNDON, VA
FEDERAL RESERVE BOARD–WASHINGTON, DC

- Contributed to the GUI front-end of a United States Air Force engine diagnostic system, utilizing PowerBuilder, SQL, C++, Sybase, ASP, XML, Graphics Server, and Oracle in an ISO 9001 environment.
- Led modifications to a call and defect tracking system, acquiring expertise in a complex proprietary programming language and SQL.
- Administered database and UNIX system, optimizing UNIX disk layout, installing Informix Online database, and scripting in shell.
- Maintained and enhanced the Federal Reserve Board money laundering detection system by updating PowerBuilder and the back-end IBM Db2 database.

Instructional Designer / Training & Technical Documentation

(2 years)

UUNET TECHNOLOGIES, A WORLD.COM COMPANY–FAIRFAX, VA | NETRIX CORPORATION–HERNDON, VA | SMITH BARNEY, INC.–NEW YORK, NY

- Contributed to the development of an online training and instructional management system for a large ISP, utilizing Oracle databases, Perl DBI, and creating scripts for dynamic webpages.
- Facilitated training on the use of F-Secure, UNIX commands, vi editor, and object-oriented programming concepts.
- Created a "Basics of Networking" web-based course for employee use.
- Trained telephony engineers on Quintus call and defect tracking system.
- Wrote supplemental user manual for portfolio management system.

Programmer Analyst / Quality Assurance

(2 years)

SMITH BARNEY, INC.–NEW YORK, NY

- Developed comprehensive test plans for software rollouts, upgrades, and patches, overseeing debugging processes, and contributing to sign-off before launch.
- Enabled generation of reports using SQL and Crystal Reports.
- In charge of integration of software updates and management of version control.
- Administered Level II technical support.