

Sujan Parajuli

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Education

Norwich University, Northfield, VT

Expected May 2027

B.S. in Computer Science and Mathematics, Dual Major

GPA: 3.90/4.00

Minors: Actuarial Science, Information Assurance

Relevant Coursework: Data Structures, Algorithms, Machine Learning, Database Systems, Computer Architecture, Probability, Statistics, Regression Analysis, Linear Algebra, Discrete Mathematics, Calculus I–III

Technical Skills

Programming: Python, C++, R, SQL, VBA, Assembly Language, Verilog, LaTeX

Data & Machine Learning: Pandas, NumPy, SciPy, Scikit-learn, TensorFlow, XGBoost, Regression Analysis, Statistical Modeling, Data Analysis

Tools & Systems: Git, GitHub, Jupyter Notebook, VS Code, Linux/Unix, Excel, Wireshark

Research Experience

Undergraduate Researcher – Healthcare Predictive Modeling

Jan 2025 – Present

Norwich University

- Analyze the HCUP NEDS 2016 healthcare database containing more than 30 million emergency department records to study factors associated with emergency department costs.
- Develop regression and machine learning models to predict emergency department charges using demographic, insurance, geographic, and socioeconomic variables.
- Build Python workflows for data cleaning, preprocessing, feature preparation, model training, and validation using Pandas, NumPy, Scikit-learn, and XGBoost.
- Process large-scale healthcare data by handling missing values, categorical variables, outliers, and inconsistent records before analysis and modeling.
- Compare model performance using validation methods and statistical metrics to evaluate prediction reliability.
- Document research methods and findings and communicate results through technical discussions and faculty presentations.

Weintz Research Fellow – Graph Theory

May 2025 – Jul 2025

Norwich University

- Conducted mathematical research on Vertex Magic Trees using graph theory, combinatorics, and computational methods.
- Developed algorithms to construct and test vertex magic labelings across different graph structures.
- Used computational experiments to test mathematical conjectures, identify patterns, and investigate graph structures.
- Reviewed more than 20 scholarly publications to support theoretical development and guide computational experiments.
- Presented research progress and findings to faculty, explaining mathematical reasoning and computational results.

Professional Experience

Conference Services Team Leader

Summer 2026

Norwich University

- Coordinated housing, room assignments, access cards, equipment, parking, signage, and facility requirements for summer camps and conferences.
- Managed multiple events simultaneously and adjusted plans as schedules, participant numbers, and operational requirements changed.
- Coordinated with university departments, camp directors, custodial staff, security, and other campus personnel to resolve time-sensitive issues.
- Maintained event and room information and communicated operational updates to support arrivals, departures, and event transitions.

Farm Data & IT Assistant

Summer 2025, Summer 2026

Green Mountain Girls Farm

- Collected and organized soil testing data to examine nutrient and macronutrient conditions across farm areas.
- Applied statistical and machine learning methods to analyze soil data and examine patterns in macronutrient levels.
- Cleaned and structured agricultural datasets for analysis and supported data-driven farm management decisions.
- Maintained website content and provided technical support for day-to-day technology needs.

Leadership & Activities

President, Nepali Student Union **Aug 2024 – Present**

- Lead an executive board and organize cultural and social events, managing logistics, budgets, and coordination with university departments.

Vice President, Billiards Club **Jan 2025 – Present**

- Coordinate club activities, tournaments, scheduling, and member engagement.

Peer Tutor – Mathematics and Statistics **Aug 2023 – Present**

- Provide individual and small-group tutoring in Calculus I–III, Statistics, and Pre-Calculus, helping students develop quantitative reasoning and problem-solving skills.

Student Supervisor, Sodexo **Sep 2023 – Present**

- Supervise and train student employees, coordinate daily assignments, create schedules, and manage shift coverage during high-volume service periods.

Junior Civilian Ring Committee Member **2025**

- Helped coordinate the Junior Ring ceremony for more than 200 attendees, working with committee members, vendors, and university staff.

Certifications & Languages

Certifications: Career Essentials in Data Analysis – Microsoft & LinkedIn; Career Essentials in Cybersecurity – Microsoft & LinkedIn

Languages: English (Fluent), Nepali (Native), Hindi (Conversational)