Valon Haslem

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EDUCATION

Bachelor of Science in Applied Mathematics & Economics   *Grad Date: May 2026*
Concentration in Computer Science | GPA: 3.94
Gonzaga University | Spokane, WA

RELEVANT COURSEWORK

Mathematics: Abstract Algebra I, Applied Linear Algebra, Applied Statistical Models, Combinatorics and Graph Theory, Complex Variables, Medical Statistics, Numerical Methods Probability Theory, Real Analysis I, Real Analysis II, Stochastic Processes, Topology
Computer Science: Database Management Systems, Data Science Algorithms
Economics: Econometrics, Money and Banking, Game Theory, Regression Analysis

TECHNICAL SKILLS

Python | RStudio | Microsoft Office | MATLAB | Overleaf | SQL | Object-Oriented Programming

PROFESSIONAL EXPERIENCE

Mathematics Research Assistant   August 2023 – Present
Gonzaga University Math Department, Spokane, WA
- Studying combinatorial properties of games under Kat Shultis and Hays Whitlatch.
- Contributed to idea generation, research development, and presentation to faculty.
- Gained expertise in writing, proof, and research methods at the collegiate level.
- Presented a poster at the Pacific Inland Mathematics Undergraduate Conference.
- Submitted a research paper to the Mathematical Intelligencer Journal.
- Presented poster at the 2025 Joint Mathematics Meeting.
- Aided in refereeing a mathematics paper for Theory and Applications of Graphs Journal
- Grading 25 homework assignments per week for undergraduate discrete structures class.
- Proctored midterm assessments for undergraduate precalculus class.

Mathematics Tutor   January 2024 – Present
Gonzaga University Math Department, Spokane, WA
- Tutoring 20 students per week in calculus, statistics, economics, and computer science.
- Enhanced soft skills, collaborative abilities, and passion for teaching.

GRO-MECS Researcher   May 2025 – August 2025
- Conducted research on topological invariants of knots under Kate Kearney.
- Developed the hexagon unknotting number, a new knot invariant.
- Communicated results and findings in multiple poster and slideshow presentations.
- Writing a paper for submission to an undergraduate research journal.

Medical Statistics Research Assistant   January 2025 – July 2025
UW School of Medicine – Gonzaga University Health Partnership, Spokane, WA
- Aided current DNAP students in conducting statistical analysis using R on medical data to study post pulmonary condition influences.
- Worked under Dr. Joe Colorafi to conduct data analysis on AIBOT medical student chatbot aide dataset.
- Assisted Dr. Karen Colorafi to design SPSS guidelines on repeated measures ANOVA and interrupted time series (ITS) analysis for medical students.
- Reported ordinal logistic regression findings from post pulmonary conditions data.

SERVICE EXPERIENCE

Middle School Volunteer Leader   May 2023 – May 2024
Gonzaga Center for Community Engagement, Spokane, WA
- Facilitated student mentoring between Shaw Middle students and undergraduates.
- Emphasized mentor bonding, continual support for families, and vocational thinking.

PROJECTS
A Novel Method to Calculate Ventilatory Threshold   October 2025 - Present
- Collaborating with Human Physiology Student to devise a new method for ventilatory threshold calculation on ventilation data.
- Coded classes for each ventilatory threshold method, and simulated data to cross test.
- Found novel method produces consistent accuracy even when standard error is increased, an improvement from the VSlope and Strucchange methods already in use.

Stochastic Modeling of Current Linguistic Trends   August 2025 – Present
- Implementing Edge Reinforced Random Walk with Triggering Model on Kaggle twitter data to evaluate accuracy in slang prediction.
- Comparing results against empiric linguistic laws for consistency.

Spotify API Research on Artist Recommendations   June 2024 – Present
- Designed python code using numpy, pandas, and networkx to visualize networks between Spotify artists and recommended artist list.
- Constructing tool to create song recommendations from friend playlists along with data analysis using postgresql and python.

Economic Impacts on Children of Divorce   September 2024 – December 2024
- Conducted statistical analysis on the CDC Behavioral Health and Surveillance System Survey.
- Identified no trend between certain wellness indicators and parental marital status.
- Found strong correlations between wellness and lifestyle factors that influence parental marital status, allowing for further understanding of the influences of these lifestyle factors.

Conformal Mapping and the Cortical Mapping Problem   March 2024 – May 2024
- Studied current research on cortical mapping and its relationship with complex analysis.
- Presented on modern usage of Teichmüller spaces to map the brain via MRI scans.

AWARDS AND MEMBERSHIPS
- *President*, Society of Industrial and Applied Mathematics, Gonzaga University (May 2024-Present)
- *President*, Pi Mu Epsilon, Gonzaga University (May 2025 – Present)
- *Member*, Omicron Delta Epsilon, Gonzaga University (May 2024 – Present)
- *Member*, Honors Program, Gonzaga University (August 2022 – Present)
- *Best Poster*, Pacific Inland Mathematics Undergraduate Conference, University of Idaho (May 2024)
- *President's List*, Gonzaga University (December 2022 – Present)