Joshua George

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Skills

Programming: Python, Java, C++, JavaScript

Data Science & Machine Learning: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, TensorFlow

Databases: SQL (MySQL, PostgreSQL), SQLite

Statistical Analysis: ANOVA, Chi-Square tests, Regression Analysis

Data Visualization: Tableau, Matplotlib, Seaborn, Power BI

Tools & Frameworks: Git, Jupyter Notebooks, Flask, FastAPI, Microsoft Excel (Macros, Pivot Tables)

Experience

Fairmont State University | Fairmont WV, 26554 Jan '24 - Dec '25

Undergraduate Research Assistant

- Led multiple research projects analyzing STEM students' performance through **Python (Pandas, NumPy), Excel Macros, and PAST software**, identifying trends and enhancing strategies.
- Executed **ANOVA**, **Chi-Square tests**, and **regression analysis** in **Python** to analyze the socio-economic and educational influences on student success.
- Elevated institutional decision-making and student retention strategies through **crafting predictive models and data visualizations** with Python and Tableau
- Revamped data encoding, cleaning, and preprocessing workflows, leading to a **30% upsurge in research efficiency**, characterized by heightened accuracy, reduced errors, and increased output
- Delivered joint findings with faculty and research teams at academic conferences and **institutional reports**

Fairmont State University | Fairmont WV, 26554 Jan '24 - Dec '25

LEAD Center Tutor

- Facilitated enhanced comprehension of **Python, Java, Data Science, and Mathematics** for students through personalized tutoring sessions
- Formulated comprehensive learning materials covering **data structures, algorithms, and database queries**
- Advanced tutoring practices in STEM subjects by refining techniques with faculty and peers, leading to **improved academic success and student retention**

Education

Fairmont State University | Fairmont WV, 26554 May '25

Bachelor of Science

Computer Science

Projects

| Aug '24

Post-Mortem Interval Estimation

- Engineered a client-server application for estimating **post-mortem intervals** in forensic investigations by partnering with business and forensic students

- Pioneered the fusion of **cross-disciplinary insights** to address real-world forensic challenges
- Constructed a functional application by **harnessing programming and teamwork skills**

| Jan '24

Learning Enrichment and Academic Development (LEAD) Data Processing Tool

- Developed a Python-powered data mining tool to assess tutoring session trends and **student achievements**
- Employed **Natural Language Processing (NLP) techniques** to extract key insights from tutoring logs
- Utilized SQL and Pandas to **extract, transform, and visualize data**, enhancing data-driven decision-making
- Created automated reports with **data-driven recommendations** for academic improvement.

| Aug '24

Appalachian Culture Research

- Conducted **data-driven analysis** of STEM students' performance using **Python** (Pandas, NumPy) and **Excel Macros**, and **PAST** software.
- Deployed **ANOVA and Chi-Square tests** to evaluate socioeconomic impacts on academic success
- Designed **impactful data visualizations** to elucidate key findings for faculty and stakeholders
- Streamlined data encoding and preprocessing workflows to achieve a **30% efficiency enhancement**