Arjun Koshal

akoshal@stevens.edu | +1 (908)-229-2515 | linkedin.com/in/arjun-koshal | github.com/arjun-koshal

Education

Stevens Institute of Technology, School of Business — Hoboken, NJ

Bachelor of Science, Quantitative Finance, Quantitative Methods Concentration — May 2024

Stevens Institute of Technology, Schaefer School of Engineering and Science — Hoboken, NJ

Bachelor of Science, Pure and Applied Mathematics — May 2024

- **GPA 3.97/4.00**
- **Relevant Coursework:** Probability & Statistics, Linear Algebra, Numerical Methods, Optimization, Algorithms, Times Series
- **Extracurriculars:** Pi Mu Epsilon Honor Society, Mathematics Advisory Board, Peer Leader, Business Student Ambassador

Technical Skills

Programming and Markup Languages: Python, C++, R, SQL, MATLAB, SAS, HTML, CSS, LaTeX

Data Science and Machine Learning Tools: NumPy, SciPy, Pandas, Matplotlib, Seaborn, TensorFlow, SciKit-Learn, Keras

Development and Collaboration Tools: Git, Jupyter Notebooks, Dataiku, Microsoft Office: Word, Excel, PowerPoint, Copilot

Professional Experience

Pure Power Engineering — Hoboken, NJ

Artificial Intelligence Intern — February 2024 – Present

- Build an AI-driven resume reviewer leveraging NLP and large language models to parse and highlight candidates' skills efficiently
- Design a scoring algorithm to enhance resume relevance evaluation, streamlining recruitment and reducing time-to-hire by 50%
- Research Microsoft Copilot use cases, aiding its integration into daily workflows and improving company-wide efficiency by 30%

Johnson & Johnson — Titusville, NJ

Machine Learning Intern — May 2023 – August 2023

- Optimized pharmaceutical rep deployment with K-means clustering, accelerating targeted outreach and patient recommendations
- Utilized data cleaning, preprocessing, and feature engineering to improve targeting, boosting strategic allocation and market impact
- Conveyed complex analytical findings to business teams, translating data into actionable insights that fostered competitive advantage

Johnson & Johnson — Titusville, NJ

Data Science Intern — May 2022 – August 2022

- Developed the UI and backend for an R Shiny dashboard, boosting health equity awareness and promoting algorithmic fairness
- Enhanced the dashboard with user-friendly linear regression plots and data cleaning features, improving data analysis capabilities
- Executed Git integration to streamline team collaboration and project efficiency, optimizing workflow management for productivity

Stevens Institute of Technology — Hoboken, NJ

Mathematics Grader and Computer Science Course Assistant — January 2022 – Present

- Drove a 20% improvement in average exam scores by adeptly relaying complex math and computer science concepts to 40 students
- Revitalized student engagement and comprehension by hosting office hours and reviews, resulting in a 40% increase in participation
- Modified homework, assessments, and review materials to cater to diverse learning styles, leading to a 95% student satisfaction rate

ScioVirtual — Remote

Mathematical Finance Instructor — May 2021 – August 2021

- Equipped 40 students with skills for understanding the behavior of the stock market, establishing a foundation in financial acumen
- Adapted intricate concepts into an innovative syllabus and engaging workshops, integrating over 50 exercises and real-world examples
- Improved the curriculum and lectures by providing 3+ assessments to pinpoint areas for improvement, ensuring optimal outcomes

Research Projects

AI Impact on Communication and Critical Thinking Skills — February 2024 – Present

- Assess the impact of AI tools in emails, revealing tendencies towards substitution over complementary use in academic contexts
- Generate an automation in Python for emailing controlled variants to streamline research on the influence of AI-generated content
- Analyze recipient feedback on emails composed with AI assistance to evaluate its effects on how emails are perceived and replied to

Gaussian Processes for Implied Volatility Estimation — September 2023 – Present

- Implement a Gaussian Process nonparametric approach for fitting and forecasting implied volatility surfaces in the options market
- Create a methodology incorporating temporal dynamics to refine model accuracy and outperform traditional parametric models
- Conduct empirical tests to measure model benefits in real-world hedging, seeking to minimize exposure across market conditions