# SUMIT VERMA

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## SUMMARY

- Leveraged a versatile toolkit including Python, C++, SQL, and Java to deliver end-to-end solutions.
- Excelled in software development lifecycle by applying Agile methodologies and ensuring high-quality through comprehensive software testing practices.
- Certified in Machine Learning, SQL for Data Science, and Quantitative Modeling, reflecting a commitment to continuous learning and application of advanced technical skills.
- Skilled in leveraging AI and data-driven insights for financial decision-making and risk management.

## PROJECTS

**DRL Quantitative Trading System**                                 *Self-Directed Project- Present*

- Spearheaded the development of a Deep Reinforcement Learning-based trading system, employing quantitative analysis and AI to devise and test high-frequency trading strategies.
- Integrated risk management algorithms, including Value at Risk (VaR), and Sharpe Ratio optimization, to ensure robust portfolio performance under volatile market conditions.
- Integrated Alpaca API for real-time market data and implemented risk management strategies to mitigate portfolio drawdowns.
- Using the Options and Derivatives Pricing to effectively automate the Iron Condor Strategy for options resulting it 3% return per day.

**Web Developer & Personal Portfolio**

- Using HTML, CSS, and JavaScript, featuring interactive UI/UX elements and smooth animations. Leveraged tools like Visual Studio Code, Git, and Adobe Creative Suite to optimize the development.

**Nixie Clock**

- Integrating C++ and Arduino microcontrollers, featuring Real-Time Clock (RTC) synchronization for precision and interactive controls for user settings customization.

**Machine Learning Model Architect**

- Python with TensorFlow and PyTorch, optimizing for diverse datasets to deploy in image recognition and sentiment analysis applications.

## CERTIFICATIONS & SPECIALIZATION

Machine Learning for Trading and Finance – Google Cloud Platform & New York Institute of Finance (2023)

- Focused on portfolio optimization, risk management, predictive analytics, and regression analysis.

SQL for Data Science – University of California, Davis (2023)

- Specialized in database querying and data-driven insights.

Fundamentals of Quantitative Modeling – University of Pennsylvania (2023)

- Gained expertise in stochastic processes, financial derivatives, and optimization techniques.

Object Oriented Data Structures in C++ – University of Illinois Urbana-Champaign (2020)

- Mastered advanced algorithms and computational efficiency.

## WORK EXPERIENCE

**Atten Babler Risk Management**                                                    Galena, IL
Software Engineer & Data Analyst                                September 2022 – May 2023
- Engineered predictive analytics on financial datasets using python, enhancing forecast accuracy by 15% and driving strategic pricing decisions that increased profit margins by 18%.
- Leveraged data collection and processing through PHP scripts, achieving a 40% reduction in manual data entry efforts and a 20% gain in process efficiency.
- Automated financial data pipelines using Python, reducing manual processing time by 40%. Developed dynamic Power BI dashboards to support portfolio performance analysis and risk assessment.

**University Of Wisconsin Platteville**                                        Platteville, WI
Academic Student Assistant                                      September 2020 – May 2023
- Enhanced student success through effective interpersonal engagements, significantly contributing to their academic achievements.
- Facilitated a 30% boost in student results by providing tailored academic support and guidance.
- Assessed and graded student coursework in C++ programming, Math, and Artificial Intelligence, ensuring accurate evaluation of technical skills.

**University Of Wisconsin Platteville**                                        Platteville, WI
Peer Mentor                                                    September 2020 – May 2023
- Guided an average of 25 freshmen per semester, fostering an environment conducive to learning and personal growth to succeed in college as well as career.
- Achieved an 80% retention rate among mentees through effective mentoring and support.
- Organized and led events, all attracting around 50 attendees, enhancing community engagement and student life.

**Lactalis American Group Inc.**                                              Belmont, WI
Machine Operator                                               June 2022 – September 2022
- Operating machine line while supervising four co-workers.
- Solving problems related to machines. Ensuring good quality products.
- Accounting paperwork and operator efficiency.

## SKILLS

- **Functional:** Quantitative Finance, Portfolio Optimization, Financial Modeling, Risk Management, Regression Analysis, Time-Series Forecasting, Software Development, Agile Project Management, Quality Assurance, Data Modeling, Embedded Systems Design, REST API Development, Software Testing, Continuous Integration/Deployment, Data Analysis.

- **Interpersonal:** Team Collaboration, Effective Communication, Problem-Solving, Leadership, Time Management, Adaptability, Creativity, Conflict Resolution, Critical Thinking, Multitasking, Risk Management.

- **Technologies:** Python, TensorFlow, Bloomberg Terminal, Alpaca API, Java, C++, SQL, MATLAB, Git, JIRA, HTML, CSS, JavaScript, Swift, TensorFlow, PyTorch, Power BI, Visual Studio Code, Machine Learning Algorithms, MySQL, PostgreSQL.

## EDUCATION

**UNIVERSITY OF WISCONSIN – PLATTEVILLE**                                       Platteville, WI
Bachelor of Science in Computer Science                          September 2019 – May 2023
- Minor in Business Administration
- Dean's List Achievement Award, Leadership Award 2022, Outstanding Event Award 2023

## LEADERSHIP & INVOLVEMENT

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|---|---|
| Senior Advocacy Senator - Student Senate | *September 2021- May 2023* |
| Multicultural Advocacy Senator - Student Senate | *May 2022- May 2023* |
| President – A.S.I.A Club | *May 2022- May 2023* |
| Club Volunteer – International Club, OMSA Club, ASIA Club, etc. | *September 2019- May 2023* |
| President - International Club, University of Wisconsin- Platteville | *September 2021- May 2022* |
| Student Representative - University International Education Committee | *September 2019- May 2021* |
| Student Voice - Inclusive Teaching Presentation | *February 25th, 2021* |