

# Jesse Schmolze

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## Education

### University of Wisconsin, Madison

*B.S. in Economics, Mathematics and Physics*

GPA: 3.91/4.00

**Relevant Coursework:** Stochastic Processes, Probability Theory, Econometrics, Machine Learning, Deep Learning, Linear Algebra, Multivariable Calculus, Intermediate Microeconomics, Intermediate Macroeconomics, International Macroeconomics, Money and Banking

Madison, Wisconsin

Graduation May 2027

## Quantitative Analysis Experience

### Federal Reserve Challenge Club

*Head of Communications & Financial Markets Senior Researcher*

Madison, Wisconsin

Apr 2025 - Present

- Lead a team of 10 researching how monetary policy changes impacted fixed income assets, currency markets and financial market stability by using 20+ indicators that span from corporate credit spreads to delinquency rates on subprime auto loans.
- Combined our findings with macroeconomic indicators such as GDP growth, jobs added and the PCE to develop fiscal and monetary policy recommendations that I will present to the Federal Reserve in October.
- Created open lines of communication between our club's 7 different sub-teams, which improves efficiency by accelerating the synthesis of different perspectives and leads to more comprehensive risk analysis.

### Quantum Physics & Equity Market Inefficiencies

*Independent Research(Ongoing)*

Madison, Wisconsin

May 2025 - Present

- Developing a stochastic model in Python using similarities between quantum particle transmission probabilities and random equity price movements to find inefficiencies in equity valuations.
- Leveraged financial statements, accounting metrics, market indicators and Schrodinger's wave equation to find equities with asymmetric risk probabilities.
- Designing backtests across hundreds of equities to evaluate model signal strength and performance potential relative to the S&P 500.

### Badger Solar Racing Club

*Race Strategy Team Lead*

Madison, Wisconsin

Apr 2025 - Present

- Collaborate with engineers to learn the dynamics of solar powered cars and translate my understanding into a Simulink model of our car's performance.
- Developed and solved a system of partial differential equations in MATLAB to model constraints such as air resistance and track conditions, enabling optimized race strategies that improved performance by approximately 10.7%.
- Developed Monte Carlo simulations that aimed to stress-test our system against a wide variety of terrains, weather patterns and race conditions to improve model reliability.

## Work & Leadership Experience

### Undergraduate Business Law Association

*Founder & President*

Madison, Wisconsin

Mar 2025 - Present

- Founded UW-Madison's first undergraduate business law club, which gives 17 members the opportunity to explore the intersection between business and law through applied case analysis.
- Designed a 13-week curriculum enabling members to debate the legal and ethical implications of financial sector activity across banking, real estate, private equity, and more.
- Spearheaded the merger of UW-Madison's and UCLA's analogous organization to form a nationwide network that expands our reach and gives members access to more professional development events.

### Everlight Solar

*Business Value Creation Intern*

Brooklyn Center, Minnesota

Summer 2025

- Applied iterative client engagement strategies to convert cold leads into warm appointments that generated over \$80,000 in revenue in a six week internship.
- Accelerated residential market customer engagement by refining and delivering solar value propositions to 500+ households.
- Developed conversational frameworks to overcome common objections and align with client's needs that led to 50+ personalized solar consultations.

## Skills & Interests

**Programming:** Java, Python(NumPy, PyTorch, Pandas), Simulink, MATLAB, Stata, Microsoft Office Suite

**Interests:** Chess, 19th Century Russian Literature, Minnesota Timberwolves, Conscious Hip-hop, Collecting Jordans