

Joe Paul

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EDUCATION

Clemson University, Greenville, SC

Doctor of Philosophy in Automotive Engineering

Expected May 2025, GPA: 3.9/4.0

The University of Alabama, Tuscaloosa, AL

Master of Science in Operations Management

May 2022, GPA: 3.8/4.0

Bachelor of Science in Mechanical Engineering

May 2020, GPA: 3.7/4.0

WORK EXPERIENCE

Graduate Research Assistant, August 2021 – Present

Clemson University, Greenville, SC

- Led the development of innovative pooled ridesharing fleet control systems, prioritizing profitability and practical implementation strategies within project guidelines.
- Actively engaged with industry leaders from Argonne National Labs and JD Power, leveraging collaborative opportunities to enhance research outcomes and refine survey methodologies crucial to project success.

General Manager, August 2021 – Present

The Velo Fellow, Greenville, SC

- Oversee all aspects of the business, including data analysis, purchasing, pricing strategies, and supplier relations, managing a team of 15 direct reports.
- Implemented strategic initiatives to guide the bar through a post-COVID recovery phase, successfully restoring profitability by reducing food and beverage costs by 24% and 10%, respectively, in the highly competitive downtown Greenville market.

Professional Accelerated Cross-Functional Experience (PACE), July 2020 – August 2021

BMW Manufacturing Company, Greer, SC

Second Term: Pre-series Functional Validation Speaker, April 2021 – August 2021

- Project-managed specialized teams in evaluating pre-series vehicles, ensuring thorough assessment and analysis.
- Led an independent project team focused on transparent and efficient project evaluation status through rigorous data analysis.

First Term: Body Shop Process Specialist, August 2020 – March 2021

- Spearheaded the transformation of process specialists through advanced bulk data analysis automation, optimizing efficiency.
- Represented the department in a cross-departmental digitalization and automation initiative, contributing expertise and facilitating collaboration.

INTERNSHIP/COOPERATIVE EDUCATION EXPERIENCE

Rideshare PhD Student Research Internship, June 2023 – September 2023

Argonne National Laboratory, Transportation and Power Systems, Chicago, IL

- Developed rideshare algorithms for efficient assignment and repositioning, optimizing resource usage.
- Designed optimization methods using linear programming and reinforcement learning for improved rideshare service.
- Implemented human factors research concepts for enhanced service and revenue in ridesharing.

Engineering Co-op, Periodic August 2017 – May 2019

BMW Manufacturing Company, Greer, SC

Third Term: Quality Engineering, Digital Solutions, January 2019 – May 2019

- Developed and tailored a camera quality monitoring system to meet departmental requirements effectively.

Second Term: Visual Inspection Systems-Assembly Quality Management, May 2018 – August 2018

- Revitalized existing visual inspection systems by introducing value-adding applications tailored to specific needs.

First Term: Operations Management-Special Vehicle Operations (SVO), August 2017 – December 2017

- Enhanced SVO processes by designing automated tracking tools, improving efficiency, effectiveness, and transparency.

Mechanical/Controls Engineering Internship, Periodic December 2017 – August 2019

Premier Automation, Pittsburgh, PA

- Researched usage of mechanical bus fasteners and repaired/maintained motor drive test/demonstration equipment.

COMPUTER SKILLS

C++, Python, SQL, Power BI, Machine Learning and Modeling, Office, R-Studio, Solidworks, POLARIS Traffic Sim

OTHER SKILLS

Leadership, Accounting, B2B Supply Chain, Management, Data Analysis, Manufacturing, R&D Science, Optimization

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PUBLICATIONS

First Author:

- J. Paul, H. Su, K. M. Gurumurthy, T. Cokyasar, J. Auld, Y. Jia, "A Study of Financial Impacts of Pooled Rideshare Based on Assignment Strategies." 2025 Transportation Research Board, Washington, DC. (Under review).
- J. Paul, R. Gangadharaiah, R. Pool, J. Brooks, K. M. Gurumurthy, J. Auld, Y. Jia, "Meeting in the Middle: Pooled Rideshare as a Compelling Transportation Offering for Elders." 2025 Transportation Research Board, Washington, DC. (Under review).
- J. Paul, V. Vankadaru, K. M. Gurumurthy, T. Cokyasar, J. Auld, Y. Jia. "Strategic Deployment of TNCs for Sustainable Urban Transportation: Insights from Austin." 2024 IEEE Intelligent Transportation Systems Journal. (Under Review)
- J. Paul, K. M. Gurumurthy, T. Cokyasar, H. Su, J. Auld and Y. Jia, "Optimization of Dynamic Ride-Sharing by Considering User Preference Through Discount and Delay Tolerance," 2023 IEEE 26th International Conference on Intelligent Transportation Systems (ITSC), Bilbao, Spain, 2023, pp. 2770-2775, doi: 10.1109/ITSC57777.2023.10422612.

Contributing Author:

- H. Su et al., "Exploring Demographic Factors Behind the User Preferences in Ridesharing Services," 2023 IEEE 26th International Conference on Intelligent Transportation Systems (ITSC), Bilbao, Spain, 2023, pp. 2370-2375, doi: 10.1109/ITSC57777.2023.10422585.

Presentations:

- Paul, J. (2024) "Pooled Rideshare, Human Factors, and the Reconsideration of Mode Shifting". 2nd Annual POLARIS User Group (PUG) Workshop, Chicago, IL.
- Paul, J. (2024) "Integrating Human Factors in Dynamic Rideshare Assignment: Willingness-To-Pay for Delay". 103rd Transportation Research Board Annual Meeting, Washington, DC.
- Paul, J. (2023). "Pooled Rideshare Structure and Optimization for POLARIS". 1st Annual POLARIS User Group (PUG) Workshop, Austin, TX.

Other:

- Served as primary editor for DOE official project reports, including presentations, annual reports, and quarterly reports.

SERVICE AND OUTREACH

Treasurer, October 2023 – Present

August Brook Community Homeowners Association, Greenville, SC

- Manage budget and operations of the association, including vendor negotiations and long-term financial planning

Board of Directors Member, June 2024 – Present

Sterling Land Trust, Greenville, SC

- New historic Sterling Land Trust board member with the mission of "protecting, preserving, and promoting the historical legacies of the Sterling community through economic development, education, and historic preservation."
- Participate in community engagement, fundraising, economic planning and development of neighborhood
- Work with and learn from highly experienced and networked board members, including original graduates from the historic Sterling High School