

SUMMARY	- 6+ years of experience in IE/OR; 3+ years of experience in data science; 7+ years of experience in programming. - Over 5 hands-on project experiences in building optimization/simulation-based decision support tools. - Energetic self starter, outstanding analytical ability and strong communication skills.		
EDUCATION	Ph.D. in Operations Research , Virginia Tech, Blacksburg, VA (GPA: 3.92/4.00)	SUMMER 2018 (EXPECTED)	
	- Advisor: Dr. Subhash C. Sarin.		
	M.S. in Industrial and Systems Engineering , Virginia Tech, Blacksburg, VA (GPA: 3.90/4.00)	2016	
	B.E. in Industrial Engineering , Tongji University, Shanghai, China (GPA: 4.64/5.00; Rank: 2/55)	2013	
	- Thesis: <i>Scheduling of parallel machines with group maintenance considerations.</i>		
COMPUTER SKILLS	Programming Languages: C++, C#, VBA. Optimization: CPLEX/OPL, AMPL. Scientific Computing: R, Mathematica.	Database: SQL, Access. Simulation: AutoMod, ProModel, Simio. Others: AutoCAD.	
GRADUATE COURSEWORK	Operations Research: Linear/Nonlinear/Integer/Dynamic Programming, Scheduling and Sequencing Theory, Random Processes, Simulation. Statistics and Mathematics: Probability Theory, Statistical Inference, Statistical Learning, Real Analysis. Manufacturing Systems: Manufacturing Systems Engineering, Production Planning & Control, Lean Manufacturing, Semiconductor Manufacturing.		
RELATED EXPERIENCE	Virginia Tech, Blacksburg, VA		
	(Winner) <i>IISE Student Case Competition in Logistics and Supply Chain</i>	FEB 2017 – MAR 2017	
	- Proposed an iterative two-stage approach for the strategic network design and the operational decisions. - Refined the original IP formulation, which resulted in a more compact and tighter model. Computational test revealed a reduction of the solution time by 10^3+ times. - Coded a computer decision support tool based on our proposed approach (C++ with CPLEX). - Visualized our solution by the multidimensional scaling technique.		
	<i>Biomass Feedstock Logistics</i>	AUG 2016 – PRESENT	
	- Identified different integrated biomass feedstock supply chain problems with structural insights. - Proposed a Dantzig-Wolfe decomposition framework for the integrated biomass feedstock supply chain problem. - Formulated a fleet management model in the design of a switchgrass-based bio-ethanol supply chain.		
	<i>Joint Supply Chain Operations</i>	JUN 2015 – PRESENT	
	- Proposed structural properties and solution methods (branch-and-bound and dynamic programming) for a joint production scheduling and shipping problem with a batching feature. - Identified the structure of the optimal shipping policy via a Lagrangian multiplier method for a joint production and shipping schedule of a vendor-buyer system. Proposed a dynamic programming-based algorithm.		
	<i>Semiconductor Fab Simulation</i>	AUG 2014 – DEC 2014	
	- Built simulation models (using AutoMod) of the Automated Material Handling System (AMHS). - Proposed a coding framework for simulating complex AMHS, which allows flexible and ease of adjustment of process sequences of lots. - Implemented and analyzed different scenarios (such as releasing and dispatching rules) for the best scenario based on cycle time and throughput. Identified the potential bottleneck of the AMHS.		
	<i>Graduate Teaching Assistant</i>	AUG 2014 – MAY 2016	
	- Prepared and instructed more than 10 different manufacturing and electrical labs. - Presented workshops for graduate level students in using simulation softwares (AutoMod and AutoSched). - Graded homeworks and exams, held office hours, and assisted other teaching tasks.		

Volkswagen Automotive, Shanghai, China

Logistics Intern

Jul 2012 – Aug 2012

- Inquired suppliers the delivery costs of purchased parts, and updated the information in database.
- Communicated with suppliers to implement a new Just-In-Time system.

PUBLICATIONS **Fangzhou Sun**, Subhash C. Sarin, and Yuqiang Wang. *Integrated production and shipping scheduling for a single manufacturer and multiple customers*. Submitted to Omega.

Fangzhou Sun and Subhash C. Sarin. *A Joint Production and Delivery Schedule for a Single-Vendor-Single-Buyer System over Finite Horizon*. In preparation, target: European Journal of Operational Research.

Fangzhou Sun, Rahul Ramachandran, Maichel M. Aguayo, and Subhash C. Sarin. *A taxonomic review of biomass feedstock supply chain problems*. In preparation, target: International Journal of Production Research.

PRESENTATIONS - *Introduction to AutoMod and AutoSched AP*. Workshop, Virginia Tech. 2016

- *Integrated production and shipping scheduling for a single manufacturer and multiple customers*. 2015

INFORMS Annual Meeting, Philadelphia, PA.

OTHER **Vice President**, INFORMS VT Student Chapter AUG 2015 – MAY 2016

EXPERIENCE

- Managed finance and memberships of the student chapter.
- Raised the average weekly seminar attendance by 30% more than the previous academic year.
- Won INFORMS 2016 Student Chapter Annual Award, Magna Cum Laude.

SELECTED Winner, IISE 2017 student case competition in Logistics and Supply Chain, *IISE*. 2017

AWARDS & Graduate Student Assembly Travel Fund, *Virginia Tech*. 2015

HONORS Alpha Pi Mu, a national industrial engineering honor society, *Virginia Tech*. 2014

Various awards including: Outstanding Graduate, 1st Prize Scholarship, etc., *Tongji University*. 2010 – 2013

Provincial 1st Prize, Chinese Physics Olympiad, *Chinese Physics Society*. 2009