

<b>SUMMARY</b>	<ul style="list-style-type: none"> <li>- 6+ years of experience in IE/OR; 3+ years of experience in data science; 7+ years of experience in programming.</li> <li>- Over 5 hands-on project experiences in building optimization/simulation-based decision support tools.</li> <li>- Energetic self starter, outstanding analytical ability and strong communication skills.</li> </ul>		
<b>EDUCATION</b>	<p><b>Ph.D. in Operations Research</b>, <i>Virginia Tech</i>, Blacksburg, VA (GPA: 3.92/4.00) SUMMER 2018 (EXPECTED)</p> <p>- Advisor: <b>Dr. Subhash C. Sarin</b>.</p> <p><b>M.S. in Industrial and Systems Engineering</b>, <i>Virginia Tech</i>, Blacksburg, VA (GPA: 3.90/4.00) 2016</p> <p><b>B.E. in Industrial Engineering</b>, <i>Tongji University</i>, Shanghai, China (GPA: 4.64/5.00; Rank: 2/55) 2013</p> <p>- Thesis: <i>Scheduling of parallel machines with group maintenance considerations</i>.</p>		
<b>COMPUTER SKILLS</b>	<p><b>Programming Languages:</b> C++, C#, VBA.</p> <p><b>Optimization:</b> CPLEX/OPL, AMPL.</p> <p><b>Scientific Computing:</b> R, Mathematica.</p>	<p><b>Database:</b> SQL, Access.</p> <p><b>Simulation:</b> AutoMod, ProModel, Simio.</p> <p><b>Others:</b> AutoCAD.</p>	
<b>GRADUATE COURSEWORK</b>	<p><b>Operations Research:</b> Linear/Nonlinear/Integer/Dynamic Programming, Scheduling and Sequencing Theory, Random Processes, Simulation.</p> <p><b>Manufacturing Systems:</b> Manufacturing Systems Engineering, Production Planning &amp; Control, Lean Manufacturing, Semiconductor Manufacturing.</p> <p><b>Statistics and Mathematics:</b> Probability Theory, Statistical Inference, Statistical Learning, Real Analysis.</p>		
<b>RELATED EXPERIENCE</b>	<p><b>Virginia Tech</b>, Blacksburg, VA</p> <p><b>(Winner) IISE Student Case Competition in Logistics and Supply Chain</b> FEB 2017 – MAR 2017</p> <ul style="list-style-type: none"> <li>- Proposed an iterative two-stage approach for the strategic network design and the operational decisions.</li> <li>- Refined the original IP formulation, which resulted in a more compact and tighter model. Computational test revealed a reduction of the solution time by <math>10^3</math>+ times.</li> <li>- Coded a computer decision support tool based on our proposed approach (C++ with CPLEX).</li> <li>- Visualized our solution by the multidimensional scaling technique.</li> </ul> <p><i>Biomass Feedstock Logistics</i> AUG 2016 – PRESENT</p> <ul style="list-style-type: none"> <li>- Identified different integrated biomass feedstock supply chain problems with structural insights.</li> <li>- Proposed a Dantzig-Wolfe decomposition framework for the integrated biomass feedstock supply chain problem.</li> <li>- Formulated a fleet management model in the design of a switchgrass-based bio-ethanol supply chain.</li> </ul> <p><i>Joint Supply Chain Scheduling</i> JUN 2015 – PRESENT</p> <ul style="list-style-type: none"> <li>- Proposed structural properties and solution methods (branch-and-bound and dynamic programming) for a joint production scheduling and shipping problem with a batching feature.</li> <li>- Identified the structure of the optimal shipping policy via a Lagrangian multiplier method for a joint production and shipping scheduling of a vendor-buyer system. Proposed a dynamic programming-based algorithm.</li> </ul> <p><i>Semiconductor Fab Simulation</i> SEP 2014 – DEC 2014</p> <ul style="list-style-type: none"> <li>- Built simulation models (using AutoMod) of the Automated Material Handling System (AMHS).</li> <li>- Proposed a coding framework for simulating complex AMHS, which allows flexible and ease of adjustment of process sequences of lots.</li> <li>- 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.</li> </ul> <p><i>Graduate Teaching Assistant</i> AUG 2014 – MAY 2016</p> <ul style="list-style-type: none"> <li>- Prepared and instructed more than 10 different manufacturing and electrical labs.</li> <li>- Presented workshop for graduate level students in using simulation softwares (AutoMod and AutoSched).</li> <li>- Graded homeworks and exams, and assisted other teaching tasks.</li> </ul>		

**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** - Raised the average attendance of weekly seminar by 30% more than the previous academic year.

- Won INFORMS 2016 Student Chapter Annual Award, Magna Cum Laude.

**SELECTED** Winner, IISE/ISERC 2017 student case competition in Logistics and Supply Chain, Pittsburgh, PA. 2017

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

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

Outstanding Graduate, Honors Student, *Tongji University*. 2011 – 2013

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