“Everyone is talking about machine learning today and Lehigh’s optimization program is one of the top programs in the U.S. As a graduate student, I spoke at conferences and co-authored multiple papers in a highly practical area of optimization—improving algorithm design for continuous optimization. My work helped build a strong resume and connections with industry.”

Suyun Liu ’22 PhD
Applied scientist at Amazon
Industrial and systems engineers optimize complex processes, systems, networks, investments, and organizations across nearly all sectors of society.

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**Research**

- Mathematical optimization
- Data science and machine learning
- Stochastic models and optimization
- Applied operations research
- Quantum computing optimization
- Uncertainty quantification and complex systems

Industrial and systems engineering research at Lehigh is supported by an array of public and private sponsors, including the National Science Foundation, Commonwealth of Pennsylvania, Office of Naval Research, U.S. Department of Energy, and U.S. Department of Defense.

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