

# Jason Liu

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GitHub: <https://github.com/jliu-numopt>

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## Education

- MS in Computer Science, Stanford University - Focus: Computational Finance
- BS in Statistics, University of Toronto

## Experience

- Quantitative Developer, Vortex Capital (2018-2023)
- Built real-time risk engines using convex optimization and Monte Carlo techniques
- Developed custom gradient descent variants for portfolio optimization
- Collaborated with economists to build statistically rigorous factor models
- Research Intern, Google X (2017)
- Applied PCA and latent variable modeling to IoT sensor streams

## Projects

- GitHub: <https://github.com/jliu-numopt>
- NumOpt-Toolkit: Suite for constrained nonlinear optimization
- StatFlows: Time-series decomposition using Bayesian inference
- Focused, high-quality code but limited to statistical optimization scope

## Strengths

- Very strong in numerical optimization, statistical modeling
- Narrower theoretical base-limited exposure to advanced mathematical theory outside domain
- Exceptional debugging and validation rigor