

Will Wright

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EDUCATION **PhD Mathematics - University of California, Davis** August 2019
Dissertation: [A Rapid Eigenvalue Method for Noisy Phase Retrieval](#)
Emphases:

- Large-scale numerical methods
- Machine learning applications
- Nonlinear optimization

MS Applied Math - California State University, East Bay June 2013
2012 - Tracewell Scholarship
2011 - Sabharwal Scholarship

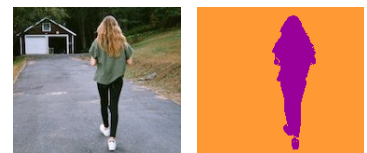
BS Political Science & Philosophy - Penn State Dec 2006

INTERNSHIP **Researcher & Software Engineer - Apple** June-Dec 2016

- prototyped optimization methods
- contributed performance-critical C++ code to team repository

RESEARCH PROJECTS **Image Segmentation**

- developed a faster algorithm than the *original algorithm*
- developed a *new method* for computing adjacency matrix, requiring $\mathcal{O}(\text{pixels})$ ops vs $\mathcal{O}(\text{pixels}^2)$ in *scikit-image*

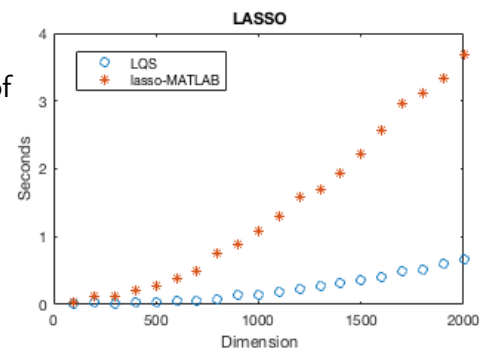


Phase Retrieval Denoising

- developed efficient numerical methods to optimize a recent *phase retrieval algorithm*
- decreased computational costs and runtime by 50-90%
- demonstrated this algorithm is more accurate than a highly-cited *competitor algorithm*

LASSO & Quadratic Programming

- *Qualifying exam proposal* proved the equivalence of two recent methods (*smoothing* and *Lagrangian*)
- demonstrated this method (LQS, right) scales better than built-in MATLAB software



SOFTWARE SKILLS **Experienced** MATLAB, Python
Intermediate C++, Git, Julia

INTERESTS Running, brewing beer, boardgames, guitar, audiobooks and podcasts (e.g., the Expanse, Stormlight Archive, Freakonomics)