

**MARK WINTER, PH.D.**

Technical Advisor

30 S 17th Street, 18th Floor
Philadelphia, PA 19103-4005
mwinter@vklaw.com

Mark received undergraduate degrees in Applied Mathematics and Electrical & Computer Engineering from the University of Colorado in 2005. He returned to graduate school in the fall of 2009 and received his master's in Electrical Engineering at the University of Wisconsin – Milwaukee in 2011, researching algorithms for tracking cells and subcellular structures in low signal-to-noise ratio biological images.

Mark began his doctoral work at the University of Wisconsin – Milwaukee, but moved with his supervisor, Dr. Andrew Cohen, to Drexel University in 2012. He received his doctoral degree from Drexel University in December of 2016. Mark's interdisciplinary research focused on using probabilistic pattern analysis and machine learning, along with heterogeneous high-performance computing clusters, to improve cellular and subcellular structure identification in biological microscopy datasets.

Mark's career has been varied including some time spent in 3D game programming, medical imaging algorithms design, and high-performance computing consulting. Mark has spent the last two years working as a Zuckerman postdoctoral researcher based in the Marine Biology department of the University of Haifa Israel. During this time, he has worked with many biologists in Haifa and elsewhere to apply statistical analysis and computational models to answer key biological questions. As part of his research Mark is currently in the Netherlands collaborating with a group at the University of Amsterdam.

Technologies

Computer Technology Software and Business Methods

Electrical Technology and Components

Education

Drexel University, Ph.D.,
Electrical & Computer
Engineering
University of Wisconsin -
Milwaukee, M.S. Electrical
Engineering
University of Colorado, B.S.
Electrical & Computer
Engineering
University of Colorado, B.S.
Applied Mathematics

As an independent contractor, Mark is applying his background in machine learning and high-performance computing to provide advice and context to Volpe Koenig on related patent claims and evidence searches.