

# CURRICULUM VITAE

## Dov Katz

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### Education

- Postdoc    **Computer Vision & Machine Learning**, Carnegie Mellon University, March 2012
- Ph.D.      **Computer Science**, University of Massachusetts Amherst, September 2011
- M.Sc.      **Computer Science**, University of Massachusetts Amherst, May 2008
- B.Sc.      **Computer Science and Electrical Engineering**, Tel-Aviv University, May 2004

### Professional and Research Experience

**Founder**, Minerva Technologies 2017-Present

Developing innovative computer vision and machine learning algorithms to disrupt the brick & mortar shopping and checkout experience.

**Head of Computer Vision**, Oculus/Facebook 2013-2017

Led Oculus' computer vision and machine learning R&D group (about 80 engineers, scientist and managers). Managed multiple M&A activities, defined product strategy, created independent high throughput teams, shipped exciting technologies to consumers.

**Senior Computer Vision Engineer**, Oculus VR 2012-2013

Led Oculus' computer vision R&D. Designed, developed and shipped a high accuracy and low latency position tracking system. Involved in camera design, driver and interface implementation. Participated in manufacturing efforts.

**Postdoctoral Fellow**, Carnegie Mellon University 2011-2012

Conducted research in autonomous mobile manipulation with focus on perception in unstructured environments. Developed state-of-the-art perception algorithms for detecting, tracking and modeling novel objects (natural and man-made). Integrated machine-learning methods to enable lifelong learning of robotic perception and manipulation skills.

- Research Assistant**, Technical University of Berlin 2009-2011  
Designed and supervised the implementation of a new robotic platform. Led a team of PhD students in the design of a new software library. Involved in hiring decisions.
- Research Assistant**, University of Massachusetts Amherst 2005-2009  
Conducted various research projects on autonomous mobile manipulation in the robotics research lab.
- Research Assistant**, Tel-Aviv University 2003-2004  
Led a research project on matching emotional states with facial expression using computer vision, in the research group of Prof. Messer-Yaron.
- Software Engineer**, Zend Technologies 2000-2005  
Directed the design and implementation of software packaging on multiple operating systems for the leading web scripting language PHP.

## Patents

Title	Patent Number	Date of Patent
Face and eye tracking using facial sensors within a head-mounted display	9959678	May 1, 2018
Rolling shutter blur reduction using motion data	9854170	December 26, 2017
Stereo-based calibration apparatus	9805512	October 31, 2017
Calibration of virtual reality systems	9779540	October 3, 2017
Calibration of multiple rigid bodies in a virtual reality system	9600925	March 21, 2017
Calibration of virtual reality systems	9524580	December 20, 2016
Facial animation using facial sensors within a head-mounted display (pending)	20170352178	December 7, 2017
Tracking portions of a user's face uncovered by a head mounted display worn by the user (pending)	20170287194	October 5, 2017
Non-overlapped stereo imaging for virtual reality headset tracking (pending)	20170192232	July 6, 2017
Hand-Held Controllers with Light-Emitting Diodes Synchronized to an External Camera (pending)	20160364910	December 15, 2016
Tracking Controllers of a Virtual Reality System (pending)	20160364013	December 15, 2016
Sparse projection for a virtual reality system (pending)	20160259168	September 8, 2016