

## Dennis Shtatnov

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### Education

edX (see website for certificates)

Online

Drexel University  
BS/MS in Computer Science (Not Completed)  
BS GPA: 3.66 MS GPA: 4.0

Philadelphia, PA  
September 2013 - 2016

### Experience

**Software Architect**  
Philadelphia, PA

Lemma Inc. <<http://lem.ma/>>  
March 2014 - present

- Creating an online education platform that improves upon existing systems by integrating all subjects into a graph of topics with lessons personalized by a user's performance.
- Using search and planning algorithms to personalize content and practice time per user.
- Applying symbolic computation for automatic grading and smart feedback.

**Computer Vision Researcher**  
Philadelphia, PA

Drexel University  
December 2014 - January 2016

- Researched methods for multi-view stereo and material recognition.
- Experimented with MRFs, PCA, and ANN for spatial labeling and segmentation.
- Optimized code for running on large clusters using parallel processing and CUDA.

**Teaching Assistant**  
Philadelphia, PA

Drexel University  
January 2014 - April 2015

- Helped students directly in debugging code and solving problems.
- Managed groups of TAs in completing grading on time and in creating assignments.
- Developed testing scripts for verifying code correctness and grading.

### Projects

Personal & Open Source Contributions

- **PX4 Autopilot** - Ported over the Crazyflie 2.0 platform to work with the autopilot. Fixed bugs in low level embedded systems code.
- **MVision** - Created an open source realtime SLAM algorithm for Android phones based on the MSCKF method (Mourikis et al)
- **SymPy** - Created a parser for interpreting LaTeX using custom grammars and heuristics.
- **FFTS** - Fixed bugs in an open source FFT library for NEON/SSE machines.

Hackathons

- Dragon Hacks - 1st Place - Gaze and Myo controlled quadcopter interface.
- Penn Apps - Made a physical game of pong with a quadcopter as a ball and phones as paddles.
- Philly Codefest - Made an Android Wear handshake app for exchanging contacts.

### Skills

**Technologies:** Android, Linux, Node.js, CUDA, ROS, Git, MongoDB, Ruby on Rails  
**Libraries:** OpenGL, OpenCV, PCL, NumPy, SymPy, jQuery, React, AngularJS, LibUSB  
**Languages:** Bash, C/C++, CSS, Go, Haskell, HTML, Java, Javascript, Matlab, PHP, Python  
**Spoken Languages:** English, Russian, Spanish