

## Dennis Shtatnov

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1284 Eagle Road, New Hope, PA 18938  
densht@gmail.com, <http://www.denniss.me>

### Education

Drexel University  
BS/MS in Computer Science  
GPA 3.60

Philadelphia, PA  
September 2013 - June 2018

### Experience

**Software Architect**  
Philadelphia, PA

Lem.ma <<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.
- Managing front-end, back-end development, and server platforms.

**Computer Vision Researcher**  
Philadelphia, PA

Drexel University  
December 2014 - present

- Researching methods for multi-view stereo and material recognition.
- Experimenting with SVMs, MRFs, and ANN trees for spatial labeling and segmentation.
- Optimizing code for running on large clusters using parallel processing and CUDA.
- Collaborating with teams of students between universities to build large systems.

**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

#### 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.

#### Personal/Open Source

- SymPy - Created a parser for interpreting LaTeX using custom grammars and heuristics.
- Transform.js - Created an operational transform library for syncing objects.
- Y-Quadcopter - Programmed PID stabilization for hybrid quadcopters geometries.
- FFTS - Fixed bugs in an open source FFT library for NEON/SSE machines.
- Open Patcher - Made a pentesting tool for ASM analysis and patching of Mach-O binaries.

### Skills

**Technologies:** Android, Linux, Node.js, CUDA, ROS, Git, MongoDB, Ruby on Rails

**Libraries:** OpenGL, OpenCV, PCL, NumPy, SymPy, jQuery, AngularJS

**Languages:** Bash, C/C++, CSS, Go, Haskell, HTML, Java, Javascript, Matlab, PHP, Python

**Spoken Languages:** English, Russian, Spanish