Dennis Shtatnov

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Education

Drexel University   Philadelphia, PA
BS/MS in Computer Science   September 2013 - June 2018
GPA 3.66

Experience

Software Architect   Lem.ma <http://lem.ma/>
Philadelphia, PA   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.
- Developed a prototype awarded NSF Grant 1549085

Computer Vision Researcher   Drexel University
Philadelphia, PA   December 2014 - present

- Researching methods for multi-view stereo and material recognition.
- Experimenting with MRFs, PCA, and ANN 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   Drexel University
Philadelphia, PA   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 interprating 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