# Steven Basart

Computer Science PhD student

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## Research Interests

My current research in computer science is in the field of computer vision. For the years of 2016-2017 I have worked on generative models, specifically GANs. I have begun investigation into reinforcement learning techniques and their applications into computer vision. My research focuses on the uses of machine learning.

## Education

**Doctor of Philosophy (Computer Science) 2014 to ongoing** 

University of Chicago, Chicago, Illinois

Bachelor of Science (Biochemistry and Computer Science) 2010 to 2014

University of Miami, Miami, Florida

## Courses

Machine Learning Robot Planning/Al Computer Vision

Algorithms Databases

# Teaching

TA for Machine Learning (Autumn 2017)

TA for Intro. to Computer Science TA for Machine Learning(Spring (Autumn 2016) 2016)

TA for Intro. to Computer Science TA for Computational Biology (Winter 2016) (Autumn 2015)

## Research Experience

#### **Computer Science 2014 to current**

I am working with Dr. Greg Shakhnarovich at TTIC in the areas of machine learning and computer vision on the problem of visual question answering. I have worked with Torch to create various neural network models.

#### Biochemistry 2011 to 2014

I worked with Dr. Richard Myers at the University of Miami trying to create a generic genetic therapy via transducible gene editing proteins. I ran western blots, gel electrophoresis, transductions, PCR, and electroporation

## Technical

Python Java Javascript / NodeJS

Git / SVN MySQL OpenGL

# Experience

#### Here Maps Research Intern Summer 2017

I worked on models to better predict arrival times (ETA estimates) and lane level navigation prediction which can be used for autonomous vehicles. **python, pytorch** 

#### Here Maps Research Intern Summer 2016

I developed a model that creates road probability maps that can be used to

detect differences between artificial maps and the real roads. **python**, **tensorflow** 

# **Projects**

### **OpenGL Renderer**

#### myRenderer

I created a simple OpenGL renderer to render some height maps and draw some objects. Applies simple lighting and texturing.

### BattleShip game over internet

### BattleShip

I created a simple Battleship game in C that has a client, server interface.