sloane **sullivan**

creative developer

about

508 East Healey St.
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Champaign, IL 61820
USA

sksulli2@illinois.edu
sloane.tech

languages

fluent french/english

programming

Experienced with
Web, Mobile,
Desktop platforms

Familiar with
Ocaml, R & NumPy
data analysis tools

interests

I am a passionate engineer; I cannot help but think of solutions and optimizations. I also love design and music production. I wish to solve the toughest challenges, whether they be technical, aesthetic, or philosophical, by combining knowledge from many areas.

education

2013-2016 **B.S.** Science in Computer Science — University of Illinois at Urbana-Champaign
Graduated December 2016

employment

06-08 2016 **Jump Trading,** Chicago — Software Development Intern, Data Group
Systems engineering for trading platforms.

06-08 2015 **Apple,** Cupertino — AppKit OS X Frameworks Intern
AppKit framework modification and extension.

2014-2015 **Independent Consulting,** Champaign — Technical Lead
iOS game development. Makaface.

06-08 2014 **Occasion,** Chicago — Mobile Engineering Intern
iOS application development.

projects

2015-2017 **Platform Developer for BDEEP Group at NCSA** — Data Science
Created data processing pipeline for research on time series prediction of rent prices in US housing market. Data sourced from research partnership with Zillow, as well as the Yelp public API and Google Maps public API. Built & evaluated economic models for rent price prediction against Zillow rent estimates. (R, Python)

2016 **Neural Network Research** — Data Science and Machine Learning
Created music genre classification Convolutional Neural Net using similarity matrices as source images. Created novel time series predictor using Echo State Networks implemented in C++. Made use of C++ AMP library for GPU linear algebra performance speedups. Applied to forex rates with some success predicting minutes out. (C++, Python, TensorFlow)

2015 **Impossible Worlds** — Oculus Rift Demo
CS498SL (Virtual Reality) final project, a virtual museum for the Oculus Rift created in Blender and Unity demonstrating conventional optical illusions depicted in a 3D virtual world, such as the Penrose steps and retrospective illusions. (Blender, Unity)

2014 **2D Game Engine** — External Framework
Platform for creating 2D games in Java. Features quadtree collision detection, game object rendering and input handling. (Java)