

Ellis Brown

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EDUCATION

VANDERBILT UNIVERSITY

Expected May 2017 | Nashville, TN
School of Engineering

B.S. COMPUTER SCIENCE

B.A. APPLIED MATHEMATICS

Dean's List (Spring 2014, 2016)

Cum. GPA: 3.4 / 4.0

CS GPA: 3.6 / 4.0

SCHOLARSHIP

Osage Indian Nation

4 yr. Higher Education Tribal Scholarship

TLSAMP Research Scholar

MARY INSTITUTE & ST. LOUIS COUNTRY DAY SCHOOL

Grad. May 2013 | Saint Louis, MO

AP Scholar with Distinction

National Merit Commended Scholar

LINKS

LinkedIn:// [ellislbrownii](#)

GitHub:// [ellisbrown](#)

COURSEWORK

UNDERGRADUATE

Machine Learning

Artificial Intelligence

Web Programming

Big Data

Computer Networks

Coding Theory & Cryptography

Algorithms

Abstract Data Structures TA & Grader (C++)

SKILLS

PROGRAMMING

Languages

Python • Javascript • Typescript • Java

Lua • C++ • SQL • Bash • Git • \LaTeX

Frameworks

Pytorch • Torch • SKLearn • NLTK • AWS

Angular2 • Node.js • Express.js

LEADERSHIP

BlackRock Intern Portfolio Challenge

Team Lead of 10 Members (Summer 2016)

Vanderbilt Water Polo **Captain** (2015-2016)

Kappa Sigma **Social Chairman** (2014-2015)

RESEARCH

ARTIFICIAL INTELLIGENCE AND VISUAL ANALOGICAL SYSTEMS LAB

Researcher under Dr. Maithilee Kunda, with Dr. Adriane E. Seiffert

Spring 2017 | Nashville, TN

Using AI and Psychology to understand the causes of information overload and learn how to reduce or eliminate it. Computationally modeling **Information Saliency** tasks in order to apply ML algorithms to simulate them being performed in the human brain.

PROJECTS

OPEN SOURCE DEEP LEARNING PROJECTS

[ssd.pytorch](#) | Spring 2017 || [GitHub:// amdegroot/ssd.pytorch](#)

PyTorch implementation of Single Shot MultiBox Detector – unified framework for object detection with a single network – from the 2016 paper by Wei Liu et al. Extends VGG-16 network with custom PyTorch layers Pytorch, Python, Computer Vision

[deepgenres.torch](#) | Spring 2017 || [GitHub:// amdegroot/deepgenres.torch](#)

Deep convolutional neural network for audio classification of music genres Torch, Lua

VANDERBILT | ADVANCED COMPUTER SCIENCE COURSE PROJECTS

Machine Learning | ID3 Algorithm | Spring 2017 || [GitHub:// ellisbrown/id3](#)

implementation of Iterative Dichotomiser 3 (id3) for decision tree learning.

Web Programming | Full-Stack SPA Solitaire game | Fall 2016

Node, Backbone, React, AJAX, MongoDB, PUG (Jade), Underscore

Big Data | Market Prediction ML | Spring 2016 || [GitHub:// dcarr45/FinanceML](#)

Predicting near-term S&P 500 index trends using machine learning. Aggregated 15 years worth of NYT articles on top S&P performers and performed sentiment analyses on to see if general sentiment could predict a rise in the S&P over a month.

Computer Networks | Networked Search Engine | Spring 2016

Android search engine application querying a copy of Wikipedia stored in AWS HBase indexed using a modified PageRank algorithm. Connects to AWS EC2 instance which processes the query and returns links to the top 10 page results Sockets, AWS

EXPERIENCE

BLACKROCK | SOFTWARE ENGINEERING INTERN

June 2016 – Aug 2016 | New York, NY

- **Full-stack developer** –Wrote Angular2 webapp for Cash Reconciliation Rule Management using TypeScript with SpringMVC Java back-end.
- **Intern Hackathon Winner** (Team of 4)–Structuring Unstructured Data at Scale PDF Parsing, NLTK NER, SKLearn Decision Tree ML prediction, Angular2 web

AWARDS

2016	Finalist	BlackRock Founder's Scholarship
2016	Finalist	Google Lime Scholarship
2013	National	(2X) USA Water Polo Academic All-American

SOCIETIES

National	American Indian Science and Engineering Society (AISES)
Regional	Tenn. Louis Stokes Alliance for Minority Participation (TLSAMP)
National	USA Water Polo Olympic Development Program