dannydenenberg@gmail.com

JavaScript/Node.js, Java, Python, HTML/CSS, Git, UNIX/Linux

## Education

Central High School (GPA: 4.9, Class Rank: 1, Percentile: 99.98%)

AP Computer Science:
Java 1-2:
Honors Pre Calc/Trig:
5.0

# Experience

#### Software Engineer Intern, Gallup, Inc.

June 2019 - July 2019

Scraped the Gallup Coaching Blog (<u>coaching.gallup.com</u>) for information about word usage, questions, etc. (mostly text analytics). Ported my voice command assistant to a google extension and linked it to the search engine for the coaching blog which used a neural network (LSTM) to associate search queries with the resulting URLs. (JavaScript/Node.js, Brain.js, Python, REST APIs)

### Technical Engineer Intern, Gallup, Inc.

August 2018 - March 2019

Created a `hackable` voice command assistant with Python. Implemented effective speech-to-text techniques using Google Cloud. Trained a machine learning model to recognize user's faces. Created responsive voice commands such as weather, searching Google, playing YouTube videos, and emailing others as well as responding to insults or an unknown phrase.

Link: <a href="https://github.com/dannydenenberg/Starlite">https://github.com/dannydenenberg/Starlite</a> (Python, Google Speech-to-Text/Text-to-Speech)

#### Cybersecurity Intern, University of Nebraska at Omaha.

May 2018 - July 2018

Created and deployed a Capture the Flag Cybersecurity challenge for UNO students utilizing Facebook's CTF API. Questions involved encryption, authentication, HTTP protocols, and IoT general questions. Assisted Ph.D. Cybersecurity student with analysis of audio results from her project on defensive internet security using Google's Text-to-speech and speech-to-text APIs. (JavaScript/Node.js, Python, Facebook CTF API)

# **Projects**

Simple Neural Network. (<a href="https://github.com/dannydenenberg/simple">https://github.com/dannydenenberg/simple</a> nn in java) Neural network implemented from scratch in Java.

- Includes matrix library with all basic element-wise operations as well as dot product, transpose, print functions, and more.
- ActivationFunction class allows for specification of what type of activation function one wants to use for an individual layer in the network

BigInt. (https://github.com/dannydenenberg/BigInt) An easy-to-use big integer library.

- o Programmed with Java.
- o Built on top of the java.math.BigInteger class.
- Allows for easier initialization, calculations, and changing of the BigInt object itself as opposed to the tedious methods built into the java.math.BigInteger class.

Space-Shooters. (<a href="http://github.com/dannydenenberg/space-shooters">http://github.com/dannydenenberg/space-shooters</a>) A shoot-em-up game.

- Written in p5.js and JavaScript
- o Includes modular code consisting of separate classes for each "creature" such as alien, hero, bullet, etc.

## **Awards**

University of Nebraska at Omaha CSEdWeek Programming Contest. 3<sup>rd</sup> Place Winner. (2018) National Association of Teachers of Singing Nebraska Musical Theater 1<sup>st</sup> Place Winner (2018) ACDA National Honors Choir TTBB Singer (2018)

Modern Woodmen of America National Speech Contest 1<sup>st</sup> Place Winner of 93,000. (2015) Modern Woodmen of America Nebraska State Speech Contest 1<sup>st</sup> Place winner. (2015) Modern Woodmen of America Nebraska State Speech Contest 1<sup>st</sup> Place winner. (2014)

## Theater Awards

Interlochen Arts Camp, Center for the Arts, Michigan. Musical Theater Program. (2015) Theatre Arts Guild Omaha awards:

Outstanding Youth Actor, Jem Finch, To Kill a Mockingbird. (2016-2017)

Outstanding Youth Actor, Noah, Caroline or Change. (2015-2016)

Nominated for Outstanding Youth Actor, Colin, Secret Garden. (2014-2015)

Outstanding Youth Actor, Ralphie, A Christmas Story. (2014-2015)

Outstanding Performance by an Ensemble, Les Misérables. (2013-2014)

### Omaha Community Playhouse awards:

Charles Jones Director's Award. (2016)

Outstanding Youth Award, Jem Finch, To Kill a Mockingbird. (2017)

#### Omaha Arts and Entertainment Awards:

Best Youth Performance, Caroline or Change. (2015-2016)

# **Avocations**

Writer (<u>Denenberg.info</u>), Classical Pianist (10 years), Trained Singer (Bel Canto, Italian, French, German); bibliophile, actor, bicyclist; Competency in Spanish.