Michael Koger Darden

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EDUCATION

Bachelor of Science, Electrical Engineering, August 2018
The University of Texas at Austin
GPA: **3.76/4.00**

Related Courses
Software Design and Implementation (I & II), Algorithms (& Data Structures), Embedded Systems, Linear Systems & Signals, Real-Time Digital Signal Processing, Digital Image & Video Processing, Automatic Control, Probability, Principles of Data Science, Data Science Lab, Honors Senior Design

SKILLS

Languages: Java, C, C++, Python, Javascript, HTML, CSS, Bash, PHP, SQL, MATLAB
Tools*:* Git, Flask, Node.js, Bootstrap, React.js, Google App Engine, Android, scikit-learn, TensorFlow
Other: Windows, macOS, Linux, basic Portuguese, basic Spanish, limited Mandarin Chinese

WORK EXPERIENCE

Student Technician, UT LAITS Jun 2018 – Aug 2018
- Performed daily morning checks of classroom technical equipment
- Handled customer support calls and helped resolve technical issues quickly and efficiently

Student Technician, UT Applied Research Laboratories Jun 2016 – Aug 2016
- Setup *GitLab Continuous Integration* (CI)
- Automated software toolchain using *Bash* scripting to facilitate CI testing

PERSONAL PROJECTS

Macro-tracker Web-App (http://macros.mkogerd.com) Oct 2018
- Created a web-app for tracking macro nutrition using *React.js*, *Node.js,* and *MySQL*
- Designed an API that handles user authentication and database interactions

Gravity IO Game (http://game.mkogerd.com) Jul 2018
- Launched an online multiplayer IO game made using *Node.js* and *socket.io*
- Worked with *HTML5 Canvas* elements and *Javascript prototype inheritance*

HackTX 2017, The University of Texas at Austin (http://dance.mkogerd.com) Oct 2017
- Modernized a web-archive of dance videos to make it more accessible
- Used *Python* and *Flask* to populate page templates from a CSV database

Embedded Systems Projects
- Created an internet controllable desk-light using *Javascript* and *PHP* Sep 2016
- Assembled a Bike-Wheel Display using *Image Processing* Feb 2016

ACADEMIC EXPERIENCE

Honors Senior Design Project, The University of Texas at Austin Nov 2017 – May 2018
- Collaborated daily with a team to develop a team-formation web application for UT faculty
- Increased functionality while reducing runtime by 10x by restructuring *Python* algorithm
- Documented all steps of the design, research, and implementation process

Software Engineering and Design Lab, The University of Texas at Austin Jan 2018 – May 2018
- Improved front-end and back-end functionality of a group cocktail recipe web-app
- Interfaced Google *geocoding* and *timezone APIs* to create a timezone-exchange A*ndroid* app
- Co-developed an online blog site using *Java* and *Google App Engine*

Data Science Lab, The University of Texas at Austin Jan 2018 – May 2018
- Generated new Pokémon with a *convolutional GAN*, *Tensorflow,* and *Microsoft Azure*
- Placed in top 33% in a mock *Kaggle* competition by using machine learning

Digital Image Processing Project, The University of Texas at Austin Nov 2017 – Dec 2017
- Implemented motion tracking on stationary videos to extract objects of interest
- Worked with *MATLAB* image processing and computer vision libraries

Principles of Data Science Project, The University of Texas at Austin Oct 2017 – Dec 2017
- Predicted outcomes of baseball games using player statistics
- Achieved an average accuracy higher than the home-team baseline

Embedded Systems Project, The University of Texas at Austin Apr 2015 – May 2015
- Created a "tag" video game on the *TM4C123 microcontroller* using *C* and *ARM assembly language*
- Placed in "supreme" category

ACCOMPLISHMENTS

Texas Tricking Club, *President* Aug 2017 – May 2018
UT Social Dance, *Class Assistant* Aug 2016 – May 2018
Huawei Seeds for the Future *Participant* Jul 2017
Eagle Scout 2009