

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

WORK EXPERIENCE

Student Technician, UT LAITS 06/18 – 08/18

- 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 06/16 – 08/16

- Setup *GitLab Continuous Integration (CI)*
- Automated software toolchain using *Bash* scripting to facilitate CI testing

ACADEMIC EXPERIENCE

Honors Senior Design Project, The University of Texas at Austin 11/17 – 05/18

- 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 01/18 – 05/18

- 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 *Android* app
- Co-developed an online blog site using *Java* and *Google App Engine*

Data Science Lab, The University of Texas at Austin 01/18 – 05/18

- 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 11/17 – 12/17

- 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 10/17 – 12/17

- 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 04/15 – 05/15

- Created a “tag” video game on the *TM4C123 microcontroller* using *C* and *ARM assembly language*
- Placed in “supreme” category

PERSONAL PROJECTS

Macro-tracker Web-App (<http://macros.mkogerd.com>) 10/18

- 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

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| Gravity IO Game (http://game.mkogerd.com) | 07/18 |
| <ul style="list-style-type: none"> • Launched an online multiplayer IO game made using <i>Node.js</i> and <i>socket.io</i> • Worked with <i>HTML5 Canvas</i> elements and <i>Javascript prototype inheritance</i> | |
| HackTX 2017, The University of Texas at Austin (http://dance.mkogerd.com) | 10/17 |
| <ul style="list-style-type: none"> • Modernized a web-archive of dance videos to make it more accessible • Used <i>Python</i> and <i>Flask</i> to populate page templates from a CSV database | |
| Embedded Systems Projects | |
| • Created an internet controllable desk-light using <i>Javascript</i> and <i>PHP</i> | 09/16 |
| • Assembled a Bike-Wheel Display using <i>Image Processing</i> | 02/16 |

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

ACCOMPLISHMENTS

Texas Tricking Club President, 2017 – 2018

UT Social Dance Class Assistant, 2016 – 2018

Huawei Seeds for the Future Participant, 2017

Eagle Scout, 2009