

**Michael Koger Darden**  
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[www.mkogerd.com](http://www.mkogerd.com)

## EDUCATION

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

### Related Courses

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

## WORK EXPERIENCE

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**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

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**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 algorithm functionality while reducing runtime by 10x
- 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

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**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

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