Joseph Moon
jmoon1506@gmail.com (512)-680-8126 1770 La Loma, Berkeley, CA 94709

OBJECTIVE: Recent Master's graduate in Computer Science seeking full-time position as a Software Developer

EDUCATION:

- **University of California, Berkeley** GPA 3.62/4
  M.Eng. in Electrical Engineering and Computer Science Graduated May 2018
- **University of Texas at Austin** GPA 3.69/4
  B.S. in Petroleum Engineering Graduated Dec 2016
  Minor in Computer Science

SKILLS:

UCB Courses:	Parallel Computing, Machine Learning, Graphics Programming, UI/UX Design, Engineering Management
Programming Languages:	C++, Java, Python, Scala, C#, JavaScript
Web Technologies:	Node, React, Meteor, Flask, Express, MongoDB, WebGL
Others:	Agile/Scrum/XP, OpenMP/MPI/CUDA, TensorFlow, Android, AWS, Git, Unix Environment

SELECTED PROJECTS:

- **Parallel Algorithm for Minesweeper** Mar-May 2018
  Role: Logic and Interface Lead
  - Developed a solver in Python for the game of Minesweeper, probabilistically comparing feasible solutions of a constrained linear problem
  - Accelerated algorithm performance using shared and distributed memory parallelization
  - Developed a Javascript web application interface to obtain remote solutions using AJAX requests
- **GPU-Accelerated 2D Rendering** Apr-May 2018
  Role: Team Lead and Shader Programmer
  - Developed a shader-based 2D raytracing algorithm using Javascript and GLSL
  - Used intermediate buffers of parallel ray bundles to batch ray intersections
  - Incorporated physics and user controls in a Three.js web application
- **Sketch Reconstruction using Variational Autoencoders** Nov-Dec 2017
  Role: Machine Learning Programmer
  - Implemented a convolutional neural network in TensorFlow
  - Used variational autoencoders to reconstruct rasterized sketch images from a latent vector
- **Iconoir Android User Interface App Family** Aug-Dec 2017
  Role: Independent
  - Developed a family of native Android user interface applications to replace default icons
  - Used asynchronous inter-app requests to control program flow without relying on a rooted device
- **See more at https://joemoon.me**

WORK EXPERIENCE:

- **Institute for Computational Engineering and Science, UT Austin** May-Aug 2015
  Role: Research Intern
  - Conducted finite element surface water simulations on the TACC supercomputing cluster
  - Developed unit and integration tests for ADCIRC fluid simulation software
  - In charge of visualizing fluid particle motion under hypothetical storm conditions
- **Department of Petroleum Engineering, UT Austin** May-Dec 2014
  Role: Research Assistant
  - Developed analytical flow models for underground gravity drainage of reservoirs
  - Assisted with core flood experiments for visco-elastic polymers

OTHER:

- US Citizen
- References available upon request