Davis Rempe

825 Menlo Ave., Apt. J Menlo Park, CA 94025 ℘ (402) 450-9402 ⊠ drempe@stanford.edu '™ cs.stanford.edu/~drempe

Education

September **Ph.D. in Computer Science**, *Stanford University*, Stanford, CA. 2017–Present Fall quarter rotation project: improving cloth simulation via machine learning

- August 2012– B.S. in Computer Science and Mathematics, University of Nebraska-Lincoln, Lincoln, NE, December with Highest Distinction.
 - 2016 GPA: 3.938/4.0. Minor: Physics. Took a number of classes in the film school including Digital Motion Graphics, Visual Effects, and Animation.

Experience

August Research and Development Intern, GC IMAGE Lincoln, NE. 2016–July o Designed and implemented novel algorithm to robustly detect ion peaks in multi-dimensional gas chromatography data. 2017 • Worked on generalizing a 1D peak deconvolution algorithm to multi-dimensional data. May-July Smart Spaces REU Intern, LEHIGH UNIVERSITY Bethlehem, PA. 2016 • Developed Android library for creating augmented reality applications using Google Cardboard. • Implemented application for 3D bone model visualization based on marker tracking using said library. • Awarded "Outstanding Project" by faculty panel. June Undergraduate Researcher, UNIVERSITY OF NEBRASKA Lincoln, NE. 2015–June • Researched effectiveness of numerous alignment algorithms for chromatography image data. 2016 • Work resulted in two peer-reviewed journal publications. August Software Development Intern, GC IMAGE Lincoln, NE. 2014-August • Maintained, developed, and tested scientific software for visualizing and analyzing comprehensive 2015 two-dimensional gas and liquid chromatography data. • Implemented new features such as accurate scoring of template matching results. Projects Fall 2016 Independent Study in Computer Graphics. • Implemented a 2D fluid simulation in C++ (w/ OpenGL) using the PIC/FLIP method on a MAC grid. Fall 2015 Computer Graphics Class (CSCE 470) Final Project. • Implemented a 3D gravitational N-body simulation in JavaScript using WebGL. • Allows users to parameterize and interactively view the simulation in real time. Computer skills Proficient Java

Familiar C/C++, Python, MATLAB, JavaScript Other Windows, Linux (Ubuntu), OpenGL, Git, Eclipse, Visual Studio, After Effects, Maya

Interests

Computer Graphics, Physically-Based Simulation/Animation, Computer Vision, Machine Learning.