Jacob Landman

Personal Info

Place and Date of Birth:	Fort Worth, Texas | 24 June 1992
Address:	2317 Cornell Drive, College Station, Texas, 77840
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Technical Experience

Current — Working through the *Pro Swift* tutorial series by Paul Hudson,

Builds on the foundations of *Hacking with Swift*. This tutorial discusses more advanced topics such as functional programming, protocol-oriented programming, lazy variables, operator overloading, and more.

Fall 2016 — Completion of *Hacking With Swift* tutorial series by Paul Hudson,

Developed 39 iOS apps through a series of tutorials that helped to build a solid understanding of Cocoa Touch (i.e. UIKit, SpriteKit, CloudKit, Core Graphics, Core Animations, and more.)

Fall 2014 - Fall 2016 — Graduate Research Assistant at Texas A&M University,

Developed radiation transport methods using object-oriented programming in C++.

Summer 2016 — Summer Intern at Lawrence Livermore National Laboratory, Weapons and Complex Integration Directorate

Implemented an exponentially converging Monte Carlo algorithm into a thermal radiation transport production level code using C++.

Jan. 2016 - April 2016 — Nuclear Research Collaborator with NASA, *Mars Solid State Surface Power*

Designed a nuclear reactor in collaboration with NASA to provide surface power for long term expeditions to Mars. My work focused on thermal-hydraulic analysis of the reactor core, which was performed using OpenFOAM, an open source CFD code written in C++.

Summer 2015 — Summer Intern at Lawrence Livermore National Laboratory, Weapons and Complex Integration Directorate

Worked on methods development for a production level code using C++ and supercomputing facilities.

May 2013 - May 2014 — Undergraduate Researcher at Texas A&M University

Developed radiation transport variance reduction methods using object oriented programming in C++.

Sept. 2012 - Dec. 2013 — AggiE Challenge in ISEN and NUEN Student Researcher

Texas A&M multidisciplinary project, which incorporated the use of GIS software and geoprocessing techniques to develop a model that locates the most suitable area for a nuclear waste repository, while minimizing risk of terrorist encounters. The model was developed using Python.

Languages

Basic Knowledge:	Fortran, Matlab, R
Intermediate Knowledge:	Swift, Python, C++, LaTeX

Education

Dec. 2016	Master of Science in Engineering, **Texas A&M University**, College Station Major: Nuclear Engineering Cumulative Gpa: 4.0/4.0 Thesis: "Variance Reduction Strategies for Implicit Monte Carlo Simulations" Advisor: Ryan McClarren
May 2014	Bachelor of Science in Engineering, **Texas A&M University**, College Station Major: Nuclear Engineering Program Gpa: 3.92/4.0 | Cumulative Gpa: 3.54/4.0 Undergraduate Thesis: "Variance Reduction Techniques for Implicit Monte Carlo Calculations"

Awards

Summer 2016	Livermore National Laboratory Summer Student Poster Award Winner
Spring 2013	Distinguished Student Award
Spring/Fall 2012	Dean's Honor Roll
Spring 2009	Grammy in the Schools Award Winner

Publications

Anas Alwafi, Landon Brockmeyer, Mason Childs, Daniel Holladay and Jacob Landman, "*Depleted Uranium Soaring Temperature Reactor (DUSTR)*", ANS Student Meeting, 2016

Jacob T. Landman and Ryan G. McClarren, "*A Volume-Dependent Fleck Factor For Added Robustness In Implicit Monte Carlo Calculations*", ANS M&C, 2015

Jacob T. Landman, Ryan G. McClarren, Jonathan R. Madsen, and Alex R. Long, "*Analysis of Lagged Weight Windows for Implicit Monte Carlo Variance Reduction*", Winter ANS Meeting, 2014