# ANNIE CHERKAEV

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## **EDUCATION**

2016 - present

PhD Student in CS

University of Utah *GPA: 4.0/4.0* 

2011 - 2015

**B.S. University of Utah** 

Major: Mathematics Minor: Computer Science GPA: 3.9/4.0

Summer 2016

**Recurse Center** 

Self-directed programming retreat

# **COURSEWORK**

Distributed Systems & OS
Compilers & Advanced Compilers
Programming Languages
Machine Learning & Al
Deep Learning Seminar
Functional Programming Studio
Advanced Algorithms
Advanced Architecture
Computer Systems & Digital Circuits

# **LANGUAGES**

Python, Haskell, Racket, Go C++, C, Scala, C#, Java, Bash

# whoami

When I'm not at my computer I: Cook, Climb, Bike & Draw

# **OPEN SOURCE PATCHES**

#### CVE-2017-12762

Found and patched a potential buffer overflow in an ISDN driver in the linux kernel. (C; Shared with Jiten Thakkar)

#### GHC Bugfix #12117

Fixed a small bug in the Haskell compiler where incorrect variable shadowing produced incorrect error messages. (Haskell)

### RESEARCH PROJECTS

#### SweetPea, a Language for Experimental Design

Designed & implemented a language with high-level abstractions that allow scientists to declaratively describe the analysis they wish to perform, and then produces an experimental sequence with statistical guarantees that the sequence is unbiased. SweetPea compiles the high-level interface to SAT clauses, which are then evaluated by a SAT sampler. (Haskell)

#### **Software Simulator for Numeric Representations**

Designed & implemented a software simulation of different numeric representation to investigate the effect of choice of representation on classification accuracy and convergence speeds of linear classifiers. (Haskell)

# **WORK EXPERIENCE**

Summer 2014

#### Software Development Intern, Delcam, SLC, Utah

Developed a wizard for designing custom gears and a macro that got included in 'What's New' for FeatureCAM 2015 (a CAD/CAM tool), among other feature requests and bug fixes. (C++)

Other

#### **Research Assistant:**

Visualization, Astronomy, Matrix Analysis

#### **Teaching Assistant:**

Machine Learning, Intro to Object Oriented Programming