# Paul Krogmeier | CV

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Pursuing master's degree in computer engineering from Purdue University. Seeking PhD opportunities in computer

#### **Education**

Graduate

**Purdue University** M.Eng. Computer Engineering, GPA: 3.98 2016-present

- Masters Project
  - Metatheory proofs for the Fiat specification language in Coq and developing theory of context-aware data refinement.
- Teaching Assistant:
  - · ECE 369 Discrete Math

Undergraduate

**Purdue University** 

West Lafayette B.S. Computer Engineering, GPA: 4.0 2012-2016

**EAFIT University** 

Study Abroad, Compilers and Operating Systems courses

Medellín, Colombia Spring 2015

#### **Publications**

Krogmeier, P. M. and Kidd, S. and Delaware, B. Towards Context-Aware Data Refinement. Fourth International Workshop on Coq for Programming Languages, January 2018.

## **Experience**

**OPLSS 2017** Eugene, Oregon

Oregon Progamming Languages Summer School

Jun 2017

Attended research lectures from experts in Programming Languages and Formal Methods. Participated in hands-on sessions for learning about current research software and techniques: Idris, PLT Redex

**Deep Learning** Purdue E-lab

West Lafayette Sep 2016-Dec 2016

Used Torch7 deep learning framework to find solutions to reinforcement learning and image classification problems

Software for HPC cluster administration

Medellín, Colombia May 2016-Jul 2016

APOLO computing group

Developed software to produce client usage reports for a Linux Rocks cluster administrative

- Wrote python scripts to generate reports on cluster load and usage characteristics
- Interfaced with TORQUE and SLURM resource management software

#### Embedded systems programming

Purdue OADA undergraduate research team

West Lafayette May 2014-Jul 2014

Developed software for a wireless, embedded semi-truck weight sensing application. Built a tool for truck drivers to quickly learn the weight of their load through an app interface communicating wirelessly with an embedded circuit board

Interfaced Nordic system-on-chip to air pressure sensor over  $I^2C$ 

Programmed communication between Android application and system-on-chip using

Bluetooth Low Energy stack

#### Coursework

Graduate CE 642 - Information Theory and Source Coding

CS 590 – Reasoning About Programs (Audit)

CE 573 - Compilers and Translator Systems

CE 608 - Computational Models and Methods

CE 600 - Probabilities and Random Processes

CS 565 - Programming Languages

CS 590 – Artificial Intelligence and Causal Inference

CS 584 - Theory of Computation and Complexity

CS 573 - Data Mining

#### Undergraduate

CE 368 - Algorithms and Data Structures

CE 369 - Discrete Math

CE 364 - Python and Bash Scripting Lab

CE 337 - ASIC Design Laboratory CE 437 – Computer Architecture

CE 477 – Digital Systems Senior Design

## **Awards and Honors**

o Purdue Ross Fellowship: May 2016

o Phi Beta Kappa: May 2016

o Graduated "with highest distinction" (top in class): May 2016

o 100K Strong in the Americas Scholarship: August 2014

### **Technical and Personal skills**

o Programming Languages:

Strong experience: C/C++, Java, Python, Matlab, and Verilog

Basic experience: SML, Idris, Racket, x86 ISA, MIPS ISA, Lisp, Jekyll/HTML/(S)CSS

o Research Software: Coq, Rosette, Sketch, Fiat

o Natural Languages: Fluent in Spanish, German, and English (native)

o Other: Lead alto saxophone player in Purdue University Jazz Band