

Paul Krogmeier | CV

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

Experience

- **Embedded systems programming** **West Lafayette**
Purdue OADA undergraduate research team *May 2014–July 2014*
Developed software for a wireless, embedded semi-truck weight sensing application. The goal was to provide a way for truck drivers to quickly learn the weight of their load through an app interface that communicated wirelessly with an embedded circuit board.
 - Interfaced Nordic nRF51822 SoC to air pressure sensors over I2C
 - Programmed communication between Android application and SoC using Bluetooth Low Energy stack
- **Software for HPC cluster administration** **Medellin, Colombia**
APOLO computing group *May 2016–July 2016*
Developed software to produce client usage reports for a Linux Rocks cluster administrative team.
 - Wrote python scripts to query cluster load and usage patterns and to present gathered information clearly and succinctly
 - Interfaced with TORQUE and SLURM resource management systems
- **Deep Learning** **West Lafayette**
Purdue E-lab *Sept. 2016–Dec. 2016*
Experimented with Torch7 deep learning framework to find solutions to reinforcement learning problems.
- **OPLSS 2017** **Eugene, Oregon**
Oregon Programming Languages Summer School *June 2017*
Attended research lectures from experts in Programming Languages and Formal Methods. Took part in hands-on sessions for learning about current research software and techniques: Idris, PLT Redex, Concurrent C0

Education

Graduate.....

- **Purdue University** **West Lafayette**
M.S. Computer Engineering, GPA: 3.98 *2016–present*
 - **Teaching Assistant:**
 - ECE 369 – Discrete Math
 - **Masters Project ('Formalization of Fiat in Coq')**: I'm working on proving type safety for the Fiat specification language in Coq. Additionally, I'm exploring the potential for synthesis of performant Haskell code from high level specifications.

Undergraduate.....

- **Purdue University** **West Lafayette**
B.S. Computer Engineering, GPA: 4.0 *2012–2016*
- **EAFIT University** **Medellin, Colombia**
Study Abroad, Compilers and Operating Systems courses *Spring 2015*

Coursework.....

Graduate

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

Technical and Personal skills

o **Programming Languages:**

Proficient in: C/C++, Python, Matlab, and Verilog

Basic experience with: SML, Idris, Racket, x86 ISA, MIPS ISA, Java, 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

Awards

o **Purdue Ross Fellowship:** May 2016

o **100K Strong in the Americas Scholarship:** August 2014