Paul Krogmeier | CV

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

Education

Graduate

- **Purdue University** — **West Lafayette**
  M.Eng. Computer Engineering, ***GPA: 3.99*** — *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** — **Medellín, Colombia**
  Study Abroad, Compilers and Operating Systems courses — *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** — **West Lafayette**
  Purdue E-lab — *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**
  APOLO computing group — *May 2016–Jul 2016*

  Developed software to produce client usage reports for a Linux Rocks cluster administrative team.
  - Wrote python scripts to generate reports on cluster load and usage characteristics
  - Interfaced with TORQUE and SLURM resource management software

- **Embedded systems programming** — **West Lafayette**
  Purdue OADA undergraduate research team — *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
MA 511 – Linear Algebra with Applications
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

- **Purdue Ross Fellowship:** May 2016
- **Phi Beta Kappa:** May 2016
- **Graduated "with highest distinction" (top in class):** May 2016
- **100K Strong in the Americas Scholarship:** August 2014

Technical and Personal skills

- **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
- **Research Software:** Coq, Rosette, Sketch, Fiat
- **Natural Languages:** Fluent in Spanish, German, and English (native)
- **Other:** Lead alto saxophone player in Purdue University Jazz Band