David Penn Zmick

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Technical strengths include: C/C++, Python, Java, Scheme, and OCaml programming, high performance computing systems, Linux systems programming, Decision Quality, and Project Management

Education

Present	B.S. in Computer Science, Minor in Mathematics	Graduation: May 2016
	University of Illinois at Urbana-Champaign	GPA: 3.60

Relevant Courses

Mathematics	Calculus I, II, III, Applied Linear Algebra, Statistics I, Differential Equations I, II
Computer Science	Discrete Mathematics, Data Structures, Theory of Computation, Algorithms, Computer Architecture I, Programming Studio, Compilers and Programming Languages, Artificial Intelligence, Numerical Analysis, Parallel Programming, Operating System Design
Other	Operations Research, Engineering Entrepreneurship

Work Experience

Summer 2015 — *ExtremeBlue Technical Intern, IBM*
Evaluate and prototype methodologies to encrypt client data stored by IBM's cloud offerings for business collaboration to enable IBM to reach high value customers with their products

August 2014 – April 2015 — *Course Assistant, CS 241: Systems Programming*
Taught discussion section and held office hours to assist students

Summer 2014 — *Software Development Intern, BP High Performance Computing Team*
Demonstrated the feasibility of storing and manipulating large (terabytes) seismic datasets on a Linux cluster with the Hierarchical Data Format (version 5).

Summer 2013 — *Systems Administration Intern, BP High Performance Computing Team*
Performed systems administration tasks for 5500 node Linux cluster, evaluated software options for internal data warehousing solution.

August 2012 – April 2013 — *Undergraduate Researcher, National Center for Supercomputing Applications*
Created visualizations to explore the properties of different Twitter accounts and understand how different types of information move through the network.

Notable Personal Projects

Ant Simulation	Simulate the movement of ants using Erlang for CS 242 final project. (github)
Study Groups	Simulate the formation of student study groups using Haskell and Python. (blog)
Set Game	Implement a generalized version of the card game "set" in OCaml. (github)

Extracurricular Activities

ACM	Chair of the local Association for Computing Machinery chapter's special interest group for educational software. Projects have include extensions to Khan Academy, development for an existing flash card application, and development of a computer science data structure visualization tool.
Youth Ministry Assistant	Volunteered as an adult assistant for church's youth group during the summers. Taught a bible study for the youth boys discussing Christian values and their applications to modern society