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## EDUCATION

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B.S. in Computer Science, Minor in Mathematics  
University of Illinois at Urbana-Champaign  
Senior Thesis (in progress): Parallel Algorithms with Clojure

Graduation: May 2016  
GPA: 3.60

## WORK EXPERIENCE

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*ExtremeBlue Technical Intern* — IBM SUMMER 2015

- Implement at-rest data encryption for IBM Connections to meet changing data security needs of IBM's customers
- Avoid trading collaboration features (collab. document editing) for security
- Use **NodeJS** to develop an encrypting file service for the Connections cloud
- Notable Libraries: **Mocha**, **Q**, **Restify**

*Course Assistant* — CS 241: SYSTEMS PROGRAMMING AUGUST 2014  
APRIL 2015

- Taught **Linux** system concepts in discussion sections
- Helped students with **C** programming language in office hours

*Software Development Intern* — BP HIGH PERFORMANCE COMPUTING TEAM SUMMER 2014

- Demonstrated feasibility of **HDF5** for storage of seismic data
- Implemented a variety of **C MPI** programs to understand performance impacts of various data storage schemes
- Worked with large (terabyte) datasets on a **Linux** cluster

*Systems Administration Intern* — BP HIGH PERFORMANCE COMPUTING TEAM SUMMER 2013

- Performed systems administration tasks for 5500 node **Linux** cluster
- Evaluated software options for internal data warehousing solution
- Deployed **Logstash** + **elasticsearch** + **Kibana** system monitoring tool

*Researcher* — NATIONAL CENTER FOR SUPERCOMPUTING APPLICATIONS AUGUST 2012  
APRIL 2013

- Explored how different types of information move through the Twitter network
- Created data visualizations using **Python** and **R**
- Other Technology: **MongoDB**, **Ruby**

## NOTABLE PROJECTS

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### ANT SIMULATION

- Simulated movement of ants on a 2D grid with **Erlang**
- Four week final project for CS 242.
- **Python** and **Matplotlib** used for data visualization

### STUDY GROUPS

- Simulated the formation of student study groups using **Haskell**
- Used **Python** and **R** for some automation and data vis

### SET GAME

- Implement generalized version of “Set” card game in **OCaml**

### MCPLANR

- First place hackathon project at VandyHacks
- Use destinations from Google Maps and Nashville's open data project to plan a day in the city
- Relevant Tech: **NodeJS**, **Angular**, Facebook's **Flow** for Javascript

For blog posts and source code see [dpzmick.com/resume\\_links](http://dpzmick.com/resume_links)