

Education

Carnegie Mellon University, HJ Heinz III College

Pittsburgh, PA: Sept 2015 – Dec 2016

- Master Information Systems Management | Database management and mapping focus | GPA: 3.74
- Relevant coursework: Linux and open source software, advanced database administration and design (Oracle 11g, MySQL), data structures and algorithms, object-oriented analysis and design
- Community Service: Associate Director of Community Outreach: Students for Urban Data Systems (suds-cmu.org). Assembled and managed team of six CMU graduate students to analyze and interactively share the results of a community health survey conducted in Pittsburgh's Hazelwood neighborhood

Brigham Young University, Marriott School of Management

Provo, UT: Sept 2005 – Dec 2009

- Bachelors of Science, Management | Emphasis: Organizational behavior & human resources.
- Secondary major: Social anthropology; Minor: International development | GPA: 3.87, Cum Laude Honors
- Composed 9,000-word senior thesis drawn from seven months of ethnographic field research in South Africa Presented findings related to non-governmental organizational effectiveness at five conferences

Technical Projects

Municipal code enforcement PostgreSQL database system design

Turtle Creek Valley, PA: Fall 2016 - Present

- Implementing Fall 2016 database design prototype: installing, configuring, and securing dedicated Linux web server for code enforcement data services. Will provide long-term maintenance and system upgrades.
- Designed 40-table PostgreSQL database through participatory design principles including field visits, narrative-based process inquiries, and structured user requirements interviews with staff and client municipalities of the Turtle Creek Valley Council of Governments east of Pittsburgh, PA
- Collaborated using command-line GIT; created browser-based web front-end using the Java DB connectivity library and Java/Glassfish web server running on Ubuntu 16.04 for client data access and updates
- Designed DB on Oracle Data Modeler; Python data migration scripts to extract data from legacy MS Access

Linux-based web server administration

Part time: Nov 2014 – Present

- Setup and secure virtual private servers (Ubuntu Linux, Apache, MySQL, PHP, Java) for three organizational websites each running Wordpress CMS.
- Customize open-source Wordpress theme packages in HTML/PHP/CSS | troubleshoot plugin bugs | co-develop content design with clients | develop company logos using vector graphics packages and edit images

Genetic programming of optimal competitive strategy

Course project: Fall 2016

- Object-oriented implementation of an evolutionary algorithm model in Java to develop a non-losing strategy for a two-computer-player simulation of tic-tac-toe; Systematically applied OO design patterns

Community health survey web portal for Greater Hazelwood Community Coalition

Oct 2015 – Dec 2016

- Negotiated \$10k service contract to analyze and present findings from a survey of community members in Hazel wood, PA; Managed a team of 6 graduate students to extract core findings from survey results
- Configured domain routing for greaterhazelwoodcensus.org; configured and secured Wordpress CMS running on Apache2; firewall management in Ubuntu 16.04 (VPS); Wordpress theme editing in PHP and Javascript

Work Experience

Faculty Instructor, Community College of Allegheny County

August 2017 – present

- Courses taught:
 - o ATE-252: Explorations in Transportation Innovation (cross-disciplinary with mechatronics and automotive tech)
 - o CIT-100: Computer fundamentals and applications
 - o CIT-115: Introduction to information systems
 - o CIT-111: Introduction to programming - Java
 - o CIT-130: Object-Oriented programming 1
 - o CIT-244: Object-Oriented programming 2
 - o DAT-102: Introduction to Data Analytics
 - o DAT-201: Data Analytics 1
 - o DAT-203: Data Visualization
 - o LND-201: Introduction to Geographic Information Systems

- Building collaborative in-person learning modules for Introduction to Programming: Java (CIT 111) and Computer Fundamentals (CIT-100) which connect student interests to cross-disciplinary course content.
- Developing online guided learning exercises for technical courses which engage multi-modal learning inclinations, support student choice in determining optimal exercise complexity, and are relevant for all students in a class with widely varying skill levels.
- Maintain a dedicated, publicly-accessible course website (technologyrediscovery.net – Apache on Linux) to teach and share original coding exercises to support the development of 14 essential Java skills.

Adjunct Instructor, Community College of Allegheny County

January 2017 – May 2017

- Designed course curriculum and implement in-class exercises for CIT111: Introduction to Programming: Java and LND241: Introduction to geographic information systems

Geospatial data engineer, CREATE Lab: Carnegie Mellon University *FT: May – Aug | PT: Sept – Dec 2016*

- Assembled and visualized student discipline and achievement data for schools across PA using web-mapping solutions: the WebGL framework, Google Maps API, Javascript web libraries (Jquery, D3), and PostgreSQL
- Collaborated with the Education Law Center, a CREATE Lab partner, to tune data visualizations to maximize impact on state policy on behalf of students subject to unjust and illegal disciplinary action
- Designed and delivered professional development for the Fluency Project K-12 teacher cohort relating to data fluency and storytelling. Illuminated data as more than numbers: it's stories, images, and history

Teaching assistant, Introduction to Mapping Systems: Heinz College, CMU

10 hrs/wk; May – Dec 2016

- Provided student-centered mentoring & feedback on the ESRI ArcMap 10.3 and Arc Pro 1.3, including scheduling dozens of individual work-times to accommodate student schedules outside of office hours
- Lead interactive exercise to instill the concept of map coordinates and projections

Community organizer & data specialist, Rhode Island Is Ready

Providence, RI: Nov 2014 – Apr 2015

- Initiated and conducted 12-15 one-on-one meetings per week with students, teachers, and elected officials to generate commitment to public education advocacy campaigns in 2015
- Design and implement organization-wide data systems to support community organizing work

Cultural consultant & data manager: The Center for Social Ecology

Ashland, OR: Aug – Nov 2014

- Structured and composed project and grant proposals for foundations and government bid-seekers
- Facilitated two-day strategic planning retreat to rewrite the organization's mission & vision

Teacher: Achievement First Amistad High School

New Haven, CT: July 2012 – June 2014

- Executed creative, data driven daily lessons to equip 93 tenth-grade students from low-income and minority backgrounds with college preparation skills and SAT success strategies
- Organized, trained, and implemented a 10th grade 1:1 student-Chromebook project | built course website
- Planned and co-facilitated staff-wide workshop series exploring racial and gender privilege

Teach For America Corps Member: Palestine-Wheatley High School

Palestine, AR: 2010 – 2012

- Created and delivered objective-driven lessons which drove 8.7 points of average growth on the ACT- Reading exam--more than double the region-codified growth goal of 3 points
- Designed and analyzed multi-modal unit- and course-level academic performance assessments and created an accompanying spreadsheet tracking system

Field research coordinator, BYU Political Science Dept

Kampala, Uganda: Jan – June 2010

- Implemented a field research project with a 3-member team to assess the quality of evaluation methods and donor relationships at community development NGOs operating throughout Uganda.

Community research specialist, James Kent Associates

Eastern WA State: Feb – March 2010

- Implemented the firm's unique method, the community action framework, to engage community members in optimizing revisions to Washington State Bureau of Land Management's 10-year plan.

Conferences Presentations

Mission-Money Tradeoff: Challenges of Government Service Provision by NGOs in South Africa

Utah Academy of Sciences, Arts, and Letters | April 2010 | St. George Utah

Just working to put food on the table: *Fractured identities and mission drift in a South African nonprofit organization*

Annual Meeting of the Society for Applied Anthropology | March 2008 | Memphis, TN

Brigham Young University's International Inquiry Conference | March 2008

Killer Growth: Participatory Strategic Planning and Development Nonprofit Over-diversification

Brigham Young University's International Inquiry Conference | March 2007

Undergraduate Engagement

Field research facilitator, BYU Int'l Field Studies Prgm *East London, South Africa: Sept 2007 - Dec 2008*

Teaching assistant, BYU Kennedy Center for International Studies *Provo, UT: Fall 2007 & Fall 2009*

Co-President, BYU Students for International Development *Provo, UT: April 2007 - May 2008*

President & founder, BYU Students for Africa *Provo, UT: Winter 2007 & Fall 2007*

Research intern, Tri-County MN Department of Criminal Corrections *Rochester, MN: May - July 2006*

Secretary, National Advisory Panel on Student Concerns, The College Board *NYC, NY: Oct. 2003 - 2006*