

# Kurt Zimmer

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- Education**
- Indiana University - Bloomington, IN** *August 2011 - expected July 2018*  
PhD Candidate in Computer Science, Minor in Bioinformatics
- University of Pittsburgh - Pittsburgh, PA** *August 2007 - August 2011*  
B.S. in Bioinformatics
- Technical Skills**
- Scripting Languages:** Python, R
- Programming Languages:** Java, C#, FORTRAN
- Database Development:** SQL, MySQL, MongoDB
- Web Development:** HTML, CSS, Javascript, PHP, XML
- Other Languages with Experience:** C, C++, Scheme
- Development Tools:** Linux/bash, LaTeX, git, JIRA, Android Studio, Visual Studio
- Experience**
- Transit Planner - IU Campus Bus Service, Bloomington, IN** *May 2016 - current*
- Devised and applied metrics utilizing passenger count and GPS data to increase bus service efficiency
  - Invented data driven algorithms that optimized IUBUS service using Python and MySQL
  - Planned the 2017 master schedule using a mixture of algorithms and heuristics in concert with the IUBUS supervisors
- Data Analyst - Center for Genomics and Bioinformatics (CGB), Bloomington, IN** *December 2011 - August 2016*
- Designed solutions that analyzed biological data and produced results for academic papers in collaboration with biology professors
  - Produced visualizations and analyzed genomic data for many research publications with the creation and implementation of scripts in Python and R
- Developer - TurboAppeal, Bloomington, IN** *May 2015 - November 2015*
- Developed algorithm in C# and MongoDB to determine property values as a part of a research team
  - Generated the enterprise software that handled property tax appeals from start to finish
  - Created front-end, back-end and administrative portal web interface for customers to submit and track their property tax appeals
- Publications**
- Kurt Zimmer, Yilun Zhang, Peng Lu, Yanyan Chen, Guanru Zhang, Mehmet Dalkilic, and Chen Zhu. Supcrtbl: A revised and extended thermodynamic dataset and software package of supcrt92. *Computers & Geosciences*, 90, 2016
  - Hussein Mohsen, Hasan Kurban, Kurt Zimmer, Mark Jenne, and Mehmet M Dalkilic. Red-*rf*: Reduced random forest for big data using priority voting & dynamic data reduction. In *Big Data (BigData Congress), 2015 IEEE International Congress on*. IEEE, 2015
  - Jun Liu, Kurt Zimmer, Douglas B Rusch, Neha Paranjape, Ram Podicheti, Haixu Tang, and Brian R Calvi. Dna sequence templates adjacent nucleosome and orc sites at gene amplification origins in drosophila. *Nucleic acids research*, 43(18), 2015
  - Submitted: Kurt Zimmer, Dhriti Sinha, Douglas B Rusch, and Malcolm E. Winkler. Global transcriptome profiling by rna-seq reveals s. pneumoniae serotype 2 strain d39 differs in its srna content from that of serotype 4 strain (tigr4)
  - In Writing: Kurt Zimmer, Logan Keating, Perry Mauli, and Mehmet Dalkilic. Public transportation system optimization on a college campus