

Christopher Rosenthal

Seattle, Washington

crosenth@gmail.com

Experience

Bioinformatics Software Engineer

2012 - Present

University of Washington Department of Laboratory Medicine, Seattle, Washington

I develop local and cloud based bioinformatics pipelines in Python. My work with doctors and researchers has resulted in several clinical and research publications. I also mentor and train new software developers to master best practice development processes in a bioinformatics environment.

Full Stack Software Engineer

2009 - 2012

The Seattle Times Company, Seattle, Washington

I developed and maintained local and cloud based digital content management systems. My role required the flexibility to develop new software while supporting minimally documented legacy systems. I worked closely with Pulitzer prize winning journalists, photographers and videographers to translate product requirements into software development specifications.

Graduate Student

2007 - 2009

Indiana University School of Informatics and Computing, Bloomington, Indiana

Thesis Project: Coral Reef Ecosystem Gene Ontologies

Software Development Engineer

2005 - 2007

Regenstrief Institute, Indianapolis, Indiana

At Regenstrief I developed Java software applications to help doctors, pharmacists and physicians prescribe medicine and manage patient records.

Software Development Engineer

2003 - 2005

Indiana University Department of Chemistry, Bloomington, Indiana

At Chemistry I developed a content management system for digital classroom homework assignments. The system was built from scratch using Perl and Javascript without the availability of todays web based software stack technologies.

Education

Indiana University, Bloomington, Indiana

M.S., Bioinformatics, 2009

B.S., Computer Science with Honors, 2005

Biology Minor

Skills

Portfolio: <https://github.com/crosenth>

Software Languages: Python, Java, Perl, Lisp, SQL and more

Python Libraries: Pandas, Numpy, Scipy, Biopython, Scons

Databases: Postgres, SQLite, MySQL, HSQL, Oracle, MS SQL Server

Productivity: Linux, Vim, Git, tmux, Bash, Docker, cloud computing, AWS and more

Publications

- [1] *Improved species level clinical identification of Enterobacteriaceae through broad range dnaJ PCR and sequencing*, American Society for Microbiology
- [2] *Clinical Next Generation Sequencing Outperforms Standard Microbiological Culture for Characterizing Polymicrobial Samples*, Clinical Chemistry
- [3] *Performance Comparison of Illumina and Ion Torrent Next-Generation Sequencing Platforms for 16S rRNA-Based Bacterial Community Profiling*, Applied Environmental Microbiology
- [4] *Molecular Diagnosis of Actinomyces madurae Infection by 16S rRNA Deep Sequencing*, Journal of Clinical Microbiology
- [5] *Rapid 16S rRNA Next-Generation Sequencing of Polymicrobial Clinical Samples for Diagnosis of Complex Bacterial Infections*, PLoS One