

Christopher Rosenthal

Seattle, Washington

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Experience

Senior Bioinformatics Software Engineer

2012 - Present

University of Washington Department of Laboratory Medicine, Seattle, Washington

I am a bioinformatician and developer of Python software packages and pipelines that parse and analyze molecular microbiology next-gen sequencing data. My work has resulted in several publications. I have also helped expand our bioinformatics software development team and mentor new bioinformatics engineers.

Full Stack Software Engineer

2009 - 2012

The Seattle Times Company, Seattle, Washington

I developed digital content distribution software. My role required the flexibility to develop using the latest software technologies on new and old platforms with minimal documentation. I had the pleasure of working alongside Pulitzer prize winning journalists, photographers and videographers. My role aided the transition from print and legacy software systems to cutting edge cloud based digital content management systems.

Graduate Student

2007 - 2009

Indiana University School of Informatics and Computing, Bloomington, Indiana

Thesis Project: Using genomics to map disease in coral reef ecosystems.

Software Development Engineer

2005 - 2007

Regenstrief Institute, Indianapolis, Indiana

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 the Chemistry department I developed a content management system for digital classroom homework assignments. The system was custom developed using Perl and Javascript without the availability of today's 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: Ubuntu Linux, Vim, Git, tmux, Bash scripting, Docker, cloud computing, AWS and more

Personal Interests

Mobile software technologies, Sailing, Fishing, Crabbing, Crossfit, Hockey

Publications

- [1] *Clinical Next Generation Sequencing Outperforms Standard Microbiological Culture for Characterizing Polymicrobial Samples*, Clinical Chemistry, 2016
- [2] *Performance Comparison of Illumina and Ion Torrent Next-Generation Sequencing Platforms for 16S rRNA-Based Bacterial Community Profiling*, Applied Environmental Microbiology, 2014
- [3] *Molecular Diagnosis of Actinomyces madurae Infection by 16S rRNA Deep Sequencing*, Journal of Clinical Microbiology, 2013
- [4] *Rapid 16S rRNA Next-Generation Sequencing of Polymicrobial Clinical Samples for Diagnosis of Complex Bacterial Infections*, PLoS One, 2013