Christopher Rosenthal

Seattle, Washington crosenth@gmail.com

Experience

Principal Bioinformatics Software Developer **2012 - Present**

University of Washington Department of Laboratory Medicine, Seattle, Washington

I am the principal 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.

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 Developer **2005 - 2007**

Regenstrief Institute, Indianapolis, Indiana

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

Software Developer **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, R, 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 Interestes

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 Actinomadura 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