Kevin J. Lynagh

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Education

Reed College, Portland, Oregon — fall 2006–present
Physics major, expected graduation May 2010

Professional experience

R&D Engineer, Qmedtrix Systems — fall 2009–present
Design and build in-house data visualization and machine learning tools for detecting medical bill fraud
Hired after delivering a project for the company as a sub-contractor

Book Designer, Perfectly Scientific Press — fall 2009
Designed a reusable book template and several covers for a specialty scientific publishing company

Baker, Patisserie Lili — summer 2007–spring 2009
Converted flour, sugar, soda, butter, and fruit into loaves, tarts, pastries, cookies, cakes, &c. via precise mixture and controlled application of heats

Relevant personal experience

Cluster by Night — summer 2009–present
Created and currently maintain lightweight in-ram linux distribution for mpi-based cluster computing

Technical typesetting & visualization, personal obsession — always & forever
Frightening knowledge of TEX & LATEX for typesetting mathematics, Adobe Illustrator for schematics
Build (interactive) visualizations with custom tools built on Ruby, JavaScript, Lisp, PostScript, r

Renn Fayre Feast, 1700 fellow students — May 2008
Worked with two other students to organize, prepare, and serve the Renn Fayre Feast. I coördinated volunteers for a week to bake 40 sheet trays of cookie bars, prepare salad, and otherwise assemble the $15,000 feast

Research experience

Geometry & protein evolution, Boston University Bioinformatics Graduate Program — summer 2009
Worked with Dr. Brandon Xia and PhD candidate Eric Franzosa on the relationship of protein structure with residue conservation

Phosphocholine membrane in $[bmim]^+[BF_4]^-$, Self Directed — spring 2009
Lipid bilayer formation in room temperature ionic liquids: Designed and built an apparatus to electronically detect possible bilayer formation in rtils, with the aim of finding a viscous solvent with high conductivity to address the gain-bandwidth limits of current amplifiers for dna nanopore sequencing
Inferred blockage of ∼100 μm diameter pore upon lipid addition from dropoff of alternating ionic current

Organic synthesis, Reed College Chemistry Department — fall 2006–summer 2007
Worked with Dr. Pat McDougal in his fall '06 Adv. Organic Synthesis Lab, and in his spring '07 research lab
Investigated the S_N2 addition of cyanide to a tropine mesylate: Explored a synthetic route to possibly form a carboxylic acid tropine derivative with intermolecular hydrogen bonding
Optimized the yields of nucleophilic addition and Pd catalyzed aromatization reactions: Varied reaction conditions and catalysts to optimize a path to a novel class of compounds with intramolecular hydrogen bonds