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Bradford Loesch

FRONT END WEB DEVELOPER

Chicago, IL

Former chemist turned coder. Worked in both industry and academia, in research labs and manufacturing. Commited to improving processes and methods. Observed a crucial need for applications that enhance the productivity of analytical scientists. Passionate about bridging the gap between science and development.

TECHNICAL SKILLS

HTML	Javascript	Rails	Vagrant
CSS	Python	Flask	Virtual Box
jQuery	Ruby	Django	Git/Version Control
Bootstrap	C++	Express	RSpec/Capybara
Materialize	IDL	Node	unittest
Angular	Labview	Gems	SQL/NoSQL

Additional scientific and engineering experience:
Spectroscopy, analytical chemistry, organic synthesis, thermomechanical testing, microscopy, laser maintenance, troubleshooting manufacturing issues, and supplier approvals

PROJECTS

MY PORTFOLIO PAGE

Showcase for myself and my projects
Designed in MEAN, utilizing Materialize as a front end framework, and a MongoDB database
Deployed to Amazon Web Services

ENGLEWOOD OPTOMETRY

Business website for a locally owned and operated optometry practice
Designed with Ruby on Rails, utilizing Bootstrap as a front end framework

TRAVEL SCHEDULING APP

Web app for coordinating travel plans, with ability to create and join trips with data validation
Desgined with Python and Django, utilizing Bootstrap as a front end framework, and a Postgres SQL database

EDUCATION

DEVELOPER IN RESIDENCE
Coding Dojo
Chicago, IL (2016)

An immersive full stack development program. Graduated with a Black Belt (highest earning of achievement) in Python/Django, Ruby on Rails, and MEAN Stack
Over 1000 hours of coding experience, and a working proficiency in JavaScript, AngularJS, SQL and NoSQL databases, as well as a wide range of other frameworks and libraries

CHEMISTRY M.S.
University of Rochester
Rochester, NY (2003 – 2007)

Studied enriched single chirality, single-walled carbon nanotubes (SWNTs) spectroscopic properties
Maintained and improved ultrafast transient absorption setup and optical table, greatly reducing data collection times
Probed the electronic relaxation rates for single chirality enriched samples of SWNTs

CHEMISTRY B.S.
Rochester Institute of Technology
Rochester, NY (2003 – 2007)

Founder of Chem Club, promoting chemistry in the community and providing chemistry tutoring
Synthesized novel, transparent, non-linear optical polymers intended for use in optical switching
Semester long cultural immersion, study abroad program in Perugia, Italy: ILR level 2 in Italian

EXPERIENCE

CODING DOJO
Teaching Assistant
Chicago, IL (2017 – present)

Focused on Python, utilizing both Flask and Django
Assist with curriculum and lesson planning
Facilitate students' understanding of the material

BRIDGESTONE-FIRESTONE
Reinforcement Engineer
Akron, OH (2007 – 2008)

Performed quality assurance for current products
Approved new suppliers for steel cord, reducing production costs and increasing quality
Worked with manufacturing and suppliers to correct quality issues and ensure production to reduce downtime

AMGEN, INC.
Small Molecule Chemist
Thousand Oaks, CA (2006)

Synthesized indoles with varying ring sizes and purified products using column chromatography
Characterized products using LC-MS and NMR
Optimized synthetic yields of Fischer indole syntheses

ROCHESTER INSTITUTE OF TECHNOLOGY
Honors Research Fellow
Rochester, NY (2005)

Performed organic synthesis of optically active polymer pendant and polymer components
Characterized synthesis products with FTIR, NMR, and Mass Spectrometry
Polymerized 2 and 3 component polymer systems

CORNERSTONE RESEARCH GROUP
Polymer Chemist
Beavercreek, OH (2004)

Used DSC, TGA, and mechanical testing to monitor quality of production polymers, and for contracted testing
Developed a new polymer activator for current products, decreasing materials costs

PRESENTATIONS AND PUBLICATIONS

2011 Annual Fall Meeting of the Materials Research Society, Boston, MA: Oral Presentation
Title: Multiple Exciton Generation in Single Chirality Single-Walled Carbon Nanotubes

Bright Fluorescence from Individual Single-Walled Carbon Nanotubes
Nano Lett., 2011, 11 (4), pp 1636–1640