Alexander Do McIntosh Broom

alexbroom.com
contact@alexbroom.com

Objective

To be a part of a dedicated team that uses cutting edge technology to develop high quality applications and services.

Education

Colorado School of Mines with President's Scholarship - Golden, Colorado
Bachelor of Science in Computer Science
Graduated May 9, 2014 **CSCI GPA: 3.0**

Areas of Study

Algorithms	Computer Graphics	Computer Organization
Computer Simulation	Computer Vision for Faces	Data Structures
Discrete Mathematics	Elements of Computing Systems	Machine Learning
Mobile Programming	Operating Systems	Programming Languages
Software Engineering	User Interfaces	Web Applications
Web Programming	Core Courses for Mechanical Engineering	

Software

.NET	Adobe Illustrator	Adobe Photoshop	AngularJS	Apex
Bash	Bootstrap	C	C++	C#
CSS	Gimp	Git	HTML	Java
JavaScript	JQuery	JSON	LibreOffice	Linux
Mac OS X	MATLAB	Microsoft Windows	Microsoft Office	MySQL
Node.js	PHP	PostgreSQL	Python	Rails
React	Ruby	Salesforce	Solidworks	SOQL
SQLite	Sublime Text	Unity	XML	

Experience

Zayo Group - Jr. Application Developer - Boulder, CO - September 2014
Developed and maintained internal and external SalesForce scalable applications from start until completion. Part of design and implementaiton of database access, event handling as records progressed through the system, and customer-facing front end web application implementation using JavaScript, JQuery, and AngularJS.

Symplified - Field Session Intern - Boulder, CO - Summer 2012
Wrote base code for a REST applications in Java, .NET, Ruby and PHP. Created basic GUIs in order for Symplified to demo the REST application to clients. As a field session intern, progress was evaluated by Colorado School of Mines and received an A.

Rice University - Programming Intern - Houston, TX - Summer 2011
Upgraded Java and C++ research software for analyzing computer performance profiles. Implemented file reading and writing with Google Protocol Buffers instead of XML. Reduced save files from over 1 GB to less than 100 MB.

University of Texas MD Anderson Cancer Center - Pathology Intern - Houston, TX - Summer 2009
Used Adobe Photoshop and Gimp to measure br/east tumor volumes. Conducted simulations for br/east tumor volume estimation. Assisted pathology researchers with microscope slide organizations.

Publications

Edgerton ME, Chuang YL, Macklin P, Sanga S, Kim J, Tomaiuolo G, Yang W, **Broom AD**, Do KA, Cristini V. Using mathematical models to understand the time dependence of the growth of ductal carcinoma in situ. Abstract, 31st Annual San Antonio Br/east Cancer Symposium (2009).

Fun & Enrichment

Designed Prototype satellite to measure high altitude albedo reflection from clouds for Lockheed Martin
Designed a heat recovery system for wood-burning ovens to lower use of gas powered water heating system
Volunteered at University of Texas MD Anderson Cancer Center during summers from 2006 until 2009
Students of Service - Raised money for br/east cancer research and provided food for the hungry
Houston Food Bank - Assisted Hurricane victims
Supported diabetes research - produced and sold over 100 shirts
1st Degree Black Belt in Kuk Sool Won (South Korean Martial Arts)
Member of Kuk Sool SWAT program (Students With Aptitude for Training)
Awarded for swimming competitions and actively practice tennis, badminton
Writes short stories and draws cartoons in spare time
Speak basic French and Vietnamese
Studying Piano since 2006 (Classical, Jazz, New Age, Pop)
Studied ceramics, drawing, computer design
Born and raised in Australia until 1999 (7 years) and regularly travel to Australia
Travelled to Japan with school to study Japanese culture and traditions
Travelled to Canada, Mexico, France, New Zealand, Bahamas, Puerto Rico, U.S. Virgin islands, Grand Turk
Tutored people ranging from children to university students