Omair Alam

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EDUCATION

UNIVERSITY OF RICHMOND

B.S in Computer Science with a double major in Physics
GPA: 3.91/4.0
Graduated: May 2017 | Richmond, VA

LINKS

Github: **omairsalam**
LinkedIn: **omairsalam**

COURSEWORK

COMPUTER SCIENCE

Data Structures and Discrete Data
Software Systems Development
Algorithms
HTML, CSS and JavaScript
Database Systems
Networks
Introduction to Compiler Construction
Programming Languages
Computer Security
Machine Learning and Deep Learning

PHYSICS

Computational Methods in Physics
Mathematical Methods in Physics
Classical Mechanics
Quantum Mechanics
Statistical Mechanics
Electricity and Magnetism

SKILLS

LANGUAGES

• Java • CSS+HTML • SQL
• Javascript • C++ • C
• Mathematica

SOFTWARE

• Eclipse • NetBeans • IntelliJ
• Maven • Selenium • Oracle Database

AWARDS AND RECOGNITION

April 2017	The Jackson J. Taylor Best Senior Seminar in Physics Award
April 2016	The Clarence E. Denoon Scholarship Award in the Natural Sciences
April 2016	Election to Phi Beta Kappa
September 2015	Simulation code added to official Jefferson Lab Repository
April 2015	Received University of Richmond Grant to conduct research in Nuclear Physics
August 2014	Co-authored Jefferson Lab paper for changes made to a Monte Carl event generator
August 2013	Awarded $200,000 Scholarship for Undergraduate Education at the University of Richmond

PROJECT AND RESEARCH EXPERIENCE

WOLFRAM RESEARCH | Development Manager And Lead Developer

May 2017 – Current | Champaign, IL
Leading a team designing and implementing an Enterprise Resource Planning (ERP) System which:

- Simplified data entry workflows of customer service by 50% by creating an inference engine that can do constant time field completion.
- Sped up employee lookup by 70% by creating a company directory that uses a natural language interface to specify employees and organizations by an abundance of qualifiers.
- Created developer tools using Natural Language Processing to optimize software development workflows by automating repetitive tasks.

AUTHENTIC | Software Engineering Intern

May 2016 – July 2016 | Richmond, VA
Improved resourcing and internal administration of Authentic employees by the following optimizations:

- Fully automated a manual 10 step process for obtaining and statistically analyzing data from user accounts in Forecastapp.com into a one-click feature of a Java applet.
- Improved central control and access of Java applets in Hippo Content Management Systems (CMS) by setting up a migration process thereby minimizing redundancies by 20%.

UNIVERSITY OF RICHMOND DEPARTMENT OF PHYSICS | Research Assistant

May 2013 - August 2015 | Richmond, VA
Designed and tested a new dual liquid deuterium and hydrogen target to be used in particle accelerator experiments using the following tools and techniques:

- Automated the input and processing of 25 parameters into Geant4 Monte Carlo Simulation, a C++ based simulation framework, by defining target geometries using Perl Scripts.
- Improved target maneuverability by defining the positions of sub-structures relative to larger structures thereby reducing the commands required to reorient the structure.
- Standardized the format of the output of an event generator to the LUND format to make it acceptable input for simulation software and increase its scope of usage.