OMAIR SHAHZAD ALAM

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EDUCATION

University of California, Berkeley ***May 2024 (Expected)***
Masters of Engineering, Electrical Engineering and Computer Sciences (Data Science and Systems concentration)

University of Richmond ***May 2017***
Bachelor of Science with a double major in Computer Science and Physics; GPA: 3.91/4.0.
Graduated *summa cum laude*.

SKILLS

Python, Java, PostgreSQL, PyTorch, Java Database Connectivity (JDBC), Git, C++, Javascript, HTML5, CSS, Linux, Wolfram Language, Mathematica, C++, Eclipse, Netbeans, IntelliJ, Visual Studio Code, HippoCMS, Sketch 3, Selenium.

WORK EXPERIENCE

Wolfram Research – Champaign, IL ***June 2017 - August 2023***
Development Manager and Lead Developer
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 – Richmond, VA ***May - July 2016***
Software Engineering Intern
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 that minimized redundancies by 20%.

RESEARCH EXPERIENCE

University of Richmond Department of Physics – Richmond, VA ***May 2013 - August 2015***
Research Assistant
Designed, tested and published simulation code for a new dual liquid deuterium and hydrogen target in the official Jefferson Lab (US National Laboratory) Repository using the following 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, and co-authored Jefferson Lab paper for these enhancements.