VICTOR B. OYEYEMI

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July 23, 2015

Data Science Team

I write to express my interest in the data science position. I bring over 10 years experience as a scientific researcher with extensive data science and machine learning activities throughout that period. My result-focused, analytical, enthusiastic problem solving, and programming skills will be very useful on the data science team. Relatedly, I previously served as trustee of a retail outlet. My work as a trustee involved analyzing financial data and reports provided by store management. I applied data analysis tools and made strategy recommendations to management. I will bring these skills on board as a data scientist

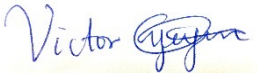
In my PhD research as a computational quantum chemistry modeler, I generated, processed, and analyzed data to generate scientific insights. I developed visually effective ways to present results for experts and lay audiences alike. I wrote programs in Bash and Python to perform complex mathematical analysis. My results from the analyses were reported using visualization tools such as Matlibplot, GNUplot, and others. I am also familiar with other key programming tools for data science (Hadoop, MapReduce, MySQL, MongoDB, etc.), and work actively working on further skill development.

As a mathematics, physics, and engineering major, I have a strong knowledge of probability, statistics, linear algebra, mathematical modeling, numerical analysis, data structure and algorithm, graph theory, real analysis, statistical physics, and others that are useful in data science and quantitative analysis. I have also embarked on self-education on machine learning topics such as "Unsupervised Learning" and "Classification" as well as NLP through Cousera and/or Udacity. I have completed courses and practical experiences using programs or topics, including R, SQL, computational finance, mathematical finance, risk analysis, data visualization, and more.

I published over 7 peer reviewed papers and many reports during during for my scientific work. While evaluating my papers, reviewers consistently remarked on the good quality of the writing, for its effectiveness in lucidly getting the technical points across. Apart from the papers (available upon request), my writing abilities were honed through successful grant proposals and reports to funding agencies. I also had the opportunity to develop my speaking skill and helped others improve theirs when I led the organizing committee of a symposium to communicate technical ideas to broad audiences.

I am confident these analytical, problem solving, communication, and organizational skills position me to fit within your company and to help advance its data-focused missions and initiatives. You can reach me at 708-969-1610 to discuss your needs and my fit for the position further.

Sincerely,
Victor B. Oyeyemi



VICTOR B. OYEYEMI

Data Scientist

Ph.D trained scientist with a strong background in machine learning, mathematics, statistics, physics, programming, and computational chemistry, including many years testing and using mature and developmental codes for front-line applications. Extensive and ongoing experience using computational modeling, data analysis, and data science (machine learning, big data, and visualization) to solve problems in the energy sector and others. Over five years providing project management and leadership to organization that supports communication of difficult technical contents to diverse audiences. Significant knowledge of financial and market analyses for businesses as a board member of a retail store. Many years teaching technical courses at high school and college levels.

EDUCATION

Ph.D. in Chemical Engineering, **Princeton University**, Princeton, NJ, 2015

Published 7 research papers in prenier peer-reviewed journals.

M.A. in Chemical Engineering, **Princeton University**, Princeton, NJ, 2009

GRE Scores (Oct. 2007): Quantitative: 800 of 800 or 94th percentile, Verbal: 650 of 800 or 93th percentile

B.A. in Physics and Mathematics, **Goshen College**, Goshen, IN, 2007

Graduated Magna Cum Laude

PROGRAMMING AND MATH SKILLS

Programming

Unix shell scripting	Java	SQL
Python	C++	Matlab
R	Excel	MapReduce(Hadoop)

Subject Area Strengths

Differentials Equations	Statistical Mechanics	Energy and Environment
Probability and Statistics	Quantum Mechanics	Computational Finance
Linear Algebra	Thermodynamics	Data Structure and Algorithm
Modeling and Simulation	Reaction Engineering	Data Science (Machine Learning, Big Data)
Numerical Analysis	Visualization	Real Analysis

EXPERIENCE PROFILE

Research

Post-Doctoral Associate, *University of Pittsburgh, Pittsburgh, PA.* 2014 – Date

Investigated a novel approach to prevent corrosion using computational quantum chemistry modeling. Generated and analyzed data to gain scientific insights. Wrote python scripts for use in the studies along with other software packages. Mentored graduate students on research conduct and paper writing. Co-wrote grant proposals which were successfully funded by the US Navy.

Doctoral Researcher, *Princeton University, Princeton, NJ.* 2008 – 2014

Conducted a multi-year computational chemistry modeling research on the combustion chemistry of liquid transportation fuels, including biodiesel and alcohol (ethanol). Designed a suite of bash and python scripts for the projects.

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Generated and analyzed data to gain scientific insights. Wrote periodic reports highlighting
successful conduct of funded research to the Department of Energy, which funded the research. Published many papers (7) in peer-reviewed journals. Fostered fruitful and mutually-beneficial collaborations on projects with multiple colleagues.

Post-baccalaureate Research Associate, *University of New Mexico*, *Albuquerque, NM* 2007 – 2008

Synthesized spherical polymer beads using microfluidic device for applications in drug delivery. Generated and analyzed data to gain scientific insights.

Resident Research Associate, *Argonne National Laboratory, Lemont IL* 2007 – 2008

Produced and characterized thin film oxides on glass substrates to make transparent conducting oxides for solar cell applications.

NSF Undergraduate Research Intern, *Rose-Hulman Institute of Technology, Terre Haute, IN* 2006 – 2006

Conducted applied mathematical modelling research, specifically the inverse problem of testing materials for defects in a non-destructive way.

Undergraduate Research Student, *Goshen College, Goshen, IN* 2005 – 2005

Conducted biophysics research on channel formation and decay in lipid bilayer membranes using monte carlo simulations.

Project Management and Leadership

Advisory Board Member/Trustee, *Princeton University Store, Princeton, NJ* 2010 – 2012

Advised store management on mission and business model of the store and recognized opportunities to grow sales or introduce new products.

Chair/Co-Chair, *Princeton Research Symposium, Princeton, NJ* 2009 – 2012

Directed all aspects of the yearly interdisciplinary conference to bring research at Princeton University to the general public. Co-ordinated student and faculty presentations. Secured funding from various organizations, such as the Princeton University graduate school and alumni.

Team Member, *Princeton Energy and Climate Scholars (PECS), Princeton, NJ* 2007 – 2013

Delegate to the "Rio+20," a United Nations international conference on sustainable development. Participated in a joint workshop between PECS and researchers at the Pontifical Catholic University in Rio de Janeiro, Brazil. Served on video production team documenting group's participation at the conference; this culminated in a series of films available for public consumption.

Instructor in Mathematics, *Clinton Christian School, Goshen, IN* 2006

Independently taught Algebra I and III to a class 25 high school students. Evaluated student performance in the course.

Peer Tutor, *Peer Mentor Program*, Goshen, IN 2006

Tutored students in economics.

HONORS

- **Frances Upton Fellowship**, Princeton University 2008 - 2013
- **Princeton Energy and Climate Scholar,** Princeton University 2011 – 2013
- **Graduate Research Fellowship Honorable Mention,** National Science Foundation 2009
- **Graduated Magna Cum Laude**, Goshen College, 2007
- **Best Research Poster**, Shenandoah Undergraduate Mathematics and Statistics Conference 2006

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