**Richard (Tommy) Guy**

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I enjoy challenging positions that require deep technical expertise typically involving both Computer Science and Data Science. I want to work on real-world problems where ownership of the solution is expected of everyone involved. The ideal position involves excellent opportunities for technical leadership and education.

**MAJOR TECHNICAL SKILLS**

* Data Mining, A/B Testing, Statistical Machine Learning, Large Map-Reduce Mining
* Python, Hadoop, Spark, Hive, R, [In the past C++, Matlab, Perl]
* Web development: Django, HTML5, JS, Backbone
* Technical leadership experience
* Technical writing and communication

**RESEARCH AND WORK EXPERIENCE**

**Principal Data Scientist**

Microsoft (Analysis & Experimentation) *October 2013 to present*

*Lead trustworthy A/B testing efforts in Microsoft with particular emphasis on Exchange/Outlook and OneDrive Consumer as well as on data tooling.*

* Led efforts that resulted in the first successful A/B tests in Exchange, Outlook, and OneDrive Consumer. This involved direct development on all aspects of the project including metrics development, data pipeline, user selection, and statistics.
* Heavily involved in multiple data mining tools in use within the company.
* Promoted from DS2 to Principle in 3 years at Microsoft. HiPO participant for FY16. Winner of Individual Contributor award for January, 2016.

**Lead Data Scientist**

Wave Apps *March 2012 to August 2013*

*Manage Wave’s data set and data insights team. Develop analytics platform and provided actionable insight to executives. Architect and develop data-focused consumer applications.*

* Architected Wave’s data mining warehouse, which is accessed org-wide.
* Educated organization on statistical best practices and lean analytics methods.
* Designed, architected, and developed applications using our data, including *categorization, accounting automation*, and *fraud detection.*

**Software Engineering Course Development** *September 2010 to present*

Software Carpentry

*Developed course material and taught software engineering best practices primarily to PhD level scientists.*

* Wrote lesson material on numerical programming with NumPy and Matlab.
* Led many workshops in 4 countries.

**Statistical Genetics Research Assistant** *Aug. 2008 to Aug. 2010 plus consulting*

Wake Forest University Baptist Medical Center

*Primary developer in a Biostatistics lab working on high throughput statistical genetics.*

* Managed all phases of designing, coding, testing, and deploying a fully parallel, statistical genetics software suite in C++ with MPI.
* Led teams of between 2 and 7 programmers.
* Mastered C++, Perl, MPI multithreading, SQL, R, and software engineering in Unix.
* Developed novel Machine Learning Algorithms for genetic associations analysis.

**TEACHING EXPERIENCE**

*[2016,2017] Community Data Science Course (COM597):* I teach a course on Data Science at the University of Washington in the Communication Leadership MA program for aspiring Marketing and Product Management professionals.

*[2014-2016] Community Data Science Workshops*: Help develop and lead series of workshops introducing Data Science to several hundred researchers in multiple departments. The series is the subject of an upcoming book chapter.

*[2010-2012] University of Toronto*: Numerical Methods and Algorithm Design and Analysis TA

*[2007-2009] Wake Forest University*: Calculus II TA, Multivariate Calculus Tutor

**OTHER PROJECTS**

**Verbal Victor for iPhone (2010-2012)**

*Verbal Victor is an Augmented Communication Device for children with speech and fine motor disorders with a professor at Wake Forest University.*

* Supervised a team of 5 developers for product development and deployment.
* Received coverage on CNN and in several major North American newspapers.
* Sold over 3,000 copies to date.

**EDUCATION**

**Graduate Work** in Computer Science, University of Toronto

*Research Area*: Urban navigation for visually impaired pedestrians.

Note: I left UofT in 2013 to pursue private-sector opportunities.

**M.S. Computer Science**, Wake Forest University, 2010

Thesis: *Machine Learning for Biostatisticians: A Hypothesis Driven Approach*

**M.A. Mathematics**, Wake Forest University, 2009

Thesis: *Some new results on Composition-Delay Equations with Asymptotically Periodic Solutions*

**B.A. Mathematics, Philosophy and Religion**, Appalachian State University, 2007.

*Summa Cum Laude, Honors Thesis*  Minor: Computer Science

**MAJOR HONORS AND AWARDS**

* 2009 Gordon A. Melson Outstanding Master's Student Award.
* Student commencement speaker for the College of Arts and Sciences, 2007, Appalachian State University. This award is given to the top overall graduate.

**LEADERSHIP ROLES**

* Technical lead on multiple projects at Microsoft.
* Led team of 3 scientists at Wave Apps in close contact with executives
* Executive on Graduate Student Committee for the Department of Computer Science, University of Toronto, 2011.
* Graduate President of Mathematics Club at Wake Forest University, 2009.
* Senator, Student Government Association, Appalachian State University, 2006