Tanya Cashorali

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828 Huntington Ave. Apt. 3
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Career Objective – To combine my quantitative skills and biological knowledge in a manner that will contribute to the field of personalized medicine

Education

Northeastern University, Boston, MA Sept. 2003 – Present
Candidate for a Bachelor of Science in Computer Science and Biology in 2008
GPA: 3.61/4.00, Dean's Scholarship recipient, Member of UPE Computer Science Honors Society, Leader of CISters – NU Women's Computing Group

Toll Gate High School, Warwick, RI Sept. 1999 - 2003
Honors: National Honor Society, RI Honor Society, National Spanish Honor Society, Quill & Scroll Writing Award
Activities: Varsity Basketball, Varsity Field Hockey, Yearbook Editor, Math Team, Student Committee, Technology Improvement Committee

Work Experience

Bioinformatics Analyst **– Dana-Farber Cancer Institute – Cancer Biology Dept., Boston, MA** 2007 – Present

- Designed and currently maintain a Rich Internet Application (eNotebook – publication pending), which enables scientists to describe, track and analyze their experiments by enhancing the data capture process
- Enable machine-learning and expert human analysis of protein identification, modification and interaction
- Developed a protein-protein interactor component, which is linked to a local instance of the Human Protein Reference Database (HPRD)
- Implemented encryption, authorization, and authentication security mechanisms for eNotebook using PHP
- Maintain an Oracle 10g database linked to a custom automated data analysis pipeline, which monitors .RAW files being acquired from several mass spectrometers
- Incorporated scriptable analysis tools into our proteomics pipeline

Bioinformatician- **Children's Hospital Informatics Program, Boston, MA** 2006 - 2007

- Analyzed genetic data involving Huntington's disease and Asthmatic patients using methods such as Principal Components Analysis, Hierarchical Clustering, t-tests, SAM (Significance Analysis of Microarrays), and various filtering/normalization procedures
- Applied Gene Set Enrichment Analysis (GSEA) to a time series of mouse cerebellum developmental data to discover metabolic pathways that are regulated during specific stages of brain development - currently continuing this research
- Utilized GSEA to identify underlying mechanisms common to both human medulloblastoma and specific stages of cerebellar development
- Attended the 2006 NIH Roadmap Biomedical Computing Conference in Bethesda, MD to present results obtained from analyzing Huntington's disease samples
- Derived algorithms to analyze complex diseases such as Autism and Asthma using linkage peak data in conjunction with GSEA
- Attended a one day "Analysis of Microarray Data" workshop hosted by John Quackenbush
- Participated in weekly meetings and journal clubs in which recent publications were discussed and reviewed
- Participated in the the Harvard-MIT Division of Health Sciences and Technology Summar Scholars program, which teaches undergrads about the latest tools and techniques for bioinformatics research

Application Analyst - **Harvard Partners Center for Genetics and Genomics, Cambridge, MA** 2005 –2006

- Provided analytical, user adoption, and QA support throughout software development life cycle for the following projects: Variant Database, DNA Microarray & Research Sequencing, GIGPAD
- Performed usability assessment on DNA Microarray Laboratory Information Management Systems (LIMS) and Variant Database

- Created user documentation for the following systems: Variant Database, GIGPAD, FIND (Freezer-Management System)
- Defined requirements for variant nomenclature to enable structured reporting of point mutations to the electronic medical record (EMR)
- Co-designed baseline aCGH (array comparative genome hybridization) structured report format
- Participated in baseline XML object model design for messaging genetic variant results to enterprise systems

Professor's Assistant/Researcher - **Northeastern University – Boston, MA** 2004 – 2005

- Researched tools to be used in the development of an online portfolio system for students
- Discussed project plans with co-op advisors and professors for the portfolio system
- Co-authored "Calculator Problem and the Design Recipe," published in ACM SIGPLAN Notices, Volume 40, Issue 3 (March 2005)
- Presented student poster and co-led workshop entitled "*Focus on the Design of Classes in OO Programming Courses"* at the Consortium for Computing Sciences in Colleges - Northeastern Region 2005
- Analyzed diagrams from open access biology publications on BioMed Central for parsing/NLP research

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Computer and Scientific Skills

Languages:	R, Java, C++, C, Actionscript, HTML, PHP, Python, Perl, SQL, XML, Scheme, JSP, SQL
Systems:	Windows (9x, NT, 2000, Me, XP), DOS, Unix, Linux
IDEs:	Eclipse, Frontpage, Adobe Flex Builder, Macromedia Flash, Borland Builder
Technologies*:*	Apache HTTP Server, Oracle, OpenSSL, CVS;Subversion, MySQL
Office Applications:	Microsoft Office (Excel, Powerpoint, Word), Adobe Photoshop 7.0
Scientific Applications:	LIMS (Laboratory Information Management Systems), Bioconductor, TIGR MeV, Mascot
Clinical Applications:	Tamtron PowerPath (diagnostic reporting system)
Laboratory Skills**:**	basic skills in laboratory technique, statistics, histograms, microbiology, microscopy, experimental design, gel electrophoresis
Functional Skills:	communication (verbal, written and graphical), able to work independently and in cross-functional team environment, prolific results-driven work style, multi-tasking and task management

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References available upon request