

Nicolas Maxwell Bertagnolli

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Education

- **University of Utah** Salt Lake City, UT
PhD in Computing Data Management and Analysis; GPA:3.7 *Expected May 2018*
 - Key Courses: Advanced Algorithms, Scientific Visualization, Structured Prediction, Clustering, Data Mining, Convex Optimization
- **University of Utah** Salt Lake City, UT
Bachelor of Science in Mathematics; GPA:3.7 *Aug. 2010 – May. 2014*
 - Key Courses: Machine Learning, Probabilistic Graphical Models, Genomic Signal Processing, Modern Algebra, Real Analysis, Numerical Analysis, Probability Theory

Experience

- **Learning Lab** Salt Lake City, UT
Graduate Research Assistant *Aug. 2014 – Present*
 - Develop new algorithms for structured prediction and machine learning
 - Prove relationships between existing algorithms and concepts in machine learning
 - Maintain and improve existing code bases
- **Alter Lab** Salt Lake City, UT
Undergraduate Research Fellow, Department of Bioengineering *Oct. 2011– May. 2014*
 - Studied mathematical and computational techniques for the analysis of high throughput genetic assays
 - Developed; implemented; demonstrated algorithms for the discovery of novel biological phenomena from data
 - Created software that simultaneously extracts meaningful patterns from metabolic and transcriptomic data

Publications

1. J. M. Tennessen, **N. M. Bertagnolli**, L. Evans, M. H. Sieber, J. Cox and C. S. Thummel (2014) “*Drosophila* Embryogenesis and the onset of aerobic glycolysis,” *G3: Genes, Genomes, Genetics* 4(5): 839-850.
2. **N. M. Bertagnolli**, J. A. Drake, J. M. Tennessen and O. Alter (2013) “SVD Identifies Transcript Length Distribution Functions from DNA Microarray Data and Reveals Evolutionary Forces Globally Affecting GBM Metabolism,” *PLoS ONE* 8(11): e78913.

Awards

1. Valedictorian Juan Diego High School (2010)
2. University of Utah Presidential Scholarship (2010)
3. School of Computing Graduate Research Fellow (2014)

Skills

Programming Experience: Scala, Python, Java, R, Matlab, Mathematica