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Roman Sinayev

Education

Sep 2011–Dec 2012 (expected) **MS Applied Mathematics**, *Stony Brook University*, Stony Brook, NY, *GPA 3.6*.

Sep 2010–Dec 2010 **Continuing Education - Graduate Biochemistry**, *Albert Einstein College of Medicine*, Bronx, NY.

Sep 2004–May 2009 **BS Biochemistry**, *Stony Brook University*, Stony Brook, NY, *GPA 3.3*.

Computer Skills

Programming Languages	Python, Java, C, Matlab, R, SQL, LaTeX
High-Performance Computing	MPI programming, Scheduling and running jobs on clusters using PBS, Parallel algorithm design on Beowulf clusters and Blue Gene supercomputers, Parallel performance analysis
Applications	SigmaPlot, Endnote, MS Office (Excel, Word, Powerpoint)
Other Software	UNIX/Linux, SSH, HTML, CSS, VNC
Hardware	Hardware installation and troubleshooting
Bioinformatics Libraries/Tools	Biopython, Bioconductor, PyCogent, ClustalW, BLAST
Cheminformatics Tools	OpenBabel, DOCK, AutoDock, AMBER, NAMD, VMD

Professional Experience

Oct 2011–Sep 2012 **Bioinformatics Analyst**, *Stony Brook University*, Stony Brook, NY.
Used machine learning and statistical techniques to computationally identify sequence motifs (short nucleotide patterns) in herpesvirus and mouse genomes;
Statistically analyzed motif significance using microarray gene expression data.

Dec 2011–Feb 2012 **Research Assistant**, *Stony Brook University*, Stony Brook, NY.
Evaluated the algorithmic efficiency and accuracy of DOCK's de novo ligand construction;
Statistically evaluated the computational performance and accuracy of current molecular similarity techniques on large datasets of small molecules.

May 2010–Jan 2011 **Research Technician**, *Albert Einstein College of Medicine*, Bronx, NY.
Wrote a Python GUI program and several Windows Batch scripts to automate formula calculations and image conversion that were previously done manually;
Assisted with determination of molecular basis and neural circuits that underlie drug abuse liability using electrochemical, molecular and pharmacological techniques.

Aug 2008–Dec 2009 **Research Fellow**, *Brookhaven National Laboratory*, Upton, NY.
Wrote scripts in Python programming language to interconvert data between several formats;
Programmed in VBA Excel to manipulate and analyze data;
Investigated age- and diet-related changes in dopamine transporter binding in Zucker rats

May 2007–Aug 2007 **Intern**, *Forest Laboratories*, Farmingdale, NY.
Performed information technology work including data backup and software testing.

Presentations

Sinayev, R.,Michaelides M., Delis F., Piyis Y.K., Wang G.J., Volkow N.D., Thanos P.K. (2009). Age- and Diet-Related Changes in Dopamine Transporter (DAT) Binding in Obese Leptin Receptor-Deficient Rats. *Society for Neuroscience*, Chicago: Poster DD-56.

Santana,A., Bulaklak, K., Cheng, B., Sinayev R., Krug, L.T. (2012). Investigating the role of NF-kB in the regulation of MHV68 gene expression. *International Congress on oncogenic Herpesviruses and Associated Diseases*, Philadelphia.