

RAHUL KARNIK

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SUMMARY

- Computational biologist with 16 years of genomics, 6 years of next generation sequencing, and 6 years of pharmaceutical industry experience
- Published 3 first author and 7 co-author manuscripts in high-impact scientific journals
- Skilled in machine learning on large datasets, data visualization and software design
- Fluent in Python, R, Java, C, C++, Perl on multiple high-performance computing platforms

EXPERIENCE

Harvard University, Cambridge, MA Dec 2012 – present

Broad Institute of MIT and Harvard, Cambridge, MA

Postdoctoral Fellow, Dept. of Stem Cells and Regenerative Biology

- Led multiple projects investigating pluripotency, differentiation, development, and cancer
- Collaborated with faculty and peers to produce 9 publications in peer-reviewed journals, such as Nature, Cell, Nature Genetics, and Cell Stem Cell. Personal contributions included experimental design, sequencing strategy, algorithm development, data analysis, and manuscript preparation.
- Designed pipelines for the processing and analysis of next-generation sequencing data, including RNA-seq, ChIP-seq, and bisulfite sequencing

Alliance Life Sciences Consulting Group, Somerset, NJ Aug 2012 – Dec 2012

Consultant

- Created business intelligence algorithm to find optimal pharmaceutical pricing decision dates

Bristol-Myers Squibb, Pennington, NJ

Principal Analyst Dec 2004 – Aug 2006

Senior Analyst June 2002 – Nov 2004

Associate Research Scientist Jan 2001 – May 2002

- Led technology evaluations, requirements analysis, and software development for genotyping, expression profiling, high-content screening, and biostatistics research teams
- Managed consultants to deliver custom informatics solutions for genomics
- Designed and developed numerous systems that supported experimental and analysis workflows
- Co-developed GeneTracker, the primary gene-centric database at BMS

The Institute of Genomic Research, Rockville, MD May 1999 – Aug 1999

Summer Fellow

- Created web interface to track sequencing progress and plan future sequencing

EDUCATION

Johns Hopkins University, Baltimore, MD Aug 2006 – Dec 2012

PhD, Biomedical Engineering

- Thesis area: *De novo* motif finding algorithms using sequence and expression data

University of Illinois, Urbana-Champaign, IL Aug 2001 – Aug 2003

MS, Computer Science

Davidson College, Davidson, NC Aug 1996 – Dec 2000

BS *cum laude*, Biology (High Honors) and Computer Science

AWARDS

Bristol-Myers Squibb Star Award July 2005

Phi Beta Kappa May 2000