Nikhil Kumar

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Education

Rutgers, The State University of New Jersey — Piscataway, NJ
Master of Science in Biomedical Engineering — Expected May 2017
Bachelor of Science in Biomedical Engineering, Minor: Computer Science — Expected May 2016
Cumulative GPA: 3.75 / 4.0

- Engineering Honors Program, Dean's List (All Semesters), 5 year Biomedical Engineering B.S./M.S. Program

Skills

Programming: Java, Shell, C, Python, R, Html, JavaScript, CSS, LaTeX, Matlab, x86 Assembly
Environments: Windows, Linux, Gimp, Git, Excel, Word, PowerPoint, Amazon Web Services, SolidWorks
Relevant Coursework: Organic Chemistry, Devices, Numerical Analysis Computing, Biosignal Processing

Work Experience

Merck & Co., Inc. — Rahway, NJ
Intern - Future Leaders Program — Summer 2015

- Developed a Scientific Data Platform using Python on Amazon Web Services with scalable and customizable components.
- Implemented a Publication Recommendation tool on the platform using Machine Learning and PubMed.
- Streamed and analyzed 1,000+ PubMed publications on the platform using Amazon Kinesis and D3.js.

Human Genetics Institute of New Jersey — Piscataway, NJ
Computational Research and Support — Spring 2013 – Fall 2014

- Analyzed nucleosome stabilization-destabilization on Chip-Seq data resulting in published work.
- Computed expression profile clustering on Rna-Seq data.

Research

Computational Analysis of Gene Expression in Stem Cells — Piscataway, NJ
Team Leader - Senior Design — Fall 2015 - Present

- Lead and organized a team to conduct computational analysis on gene expression.
- Designing and testing algorithms to retrieve Chip-Seq differential expression.

Lower Extremity Biomechanics Analysis — Piscataway, NJ
Research Assistant — Fall 2013 - Present

- Modeled the difference between shod running and barefoot running using SolidWorks.
- Performed various Finite Element Analysis experiments in SolidWorks.

Publications

Peer-Reviewed

- Chahar et al., (2014). Chromatin Profiling Reveals Regulatory Network Shifts and a Protective Role for HNF4α during Colitis. *Molecular and cellular biology*, 17, 3291–3304.

Projects

PostalPortraits: Analyzes mood changes in an email thread to manipulate an image. — HackRU Spring 2014
MyoMelodies: Uses the Myo to control a music player from hand gestures. — PennApps Fall 2014

Awards

2015	Twitter Api Award	HackRU Spring
2014	Context.io Api Award	HackRU Spring
2012	James Dickson Carr Award	Merit Scholarship

Activities

2014	HackRU Fall	Hackathon
2014	PennApps Fall	Hackathon
2013	HackNY Fall	Hackathon