

Contact

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(LinkedIn)

Top Skills

Bioinformatics
Computational Biology
Big Data Analysis

Languages

English
Gujarati

Certifications

Advanced Python
NLP with Python for Machine Learning Essential Training
Serverless and Microservices for AWS
Learning REST APIs
Docker for Developers

Honors-Awards

Firestone Medal for Excellence in Undergraduate Research
Undergraduate Advising and Research Major Grant
Stanford Alumni Award of Excellence

Publications

Comparative genetic screens in human cells reveal new regulatory mechanisms in WNT signaling
CRISPR Screens Uncover Genes that Regulate Target Cell Sensitivity to the Morphogen Sonic Hedgehog
G protein-coupled receptors control the sensitivity of cells to the morphogen Sonic Hedgehog
Discovery of gene regulatory elements through a new bioinformatics analysis of haploid genetic screens

Bhaven Patel

Software Engineer & Machine Learning
San Mateo, California, United States

Summary

I recently completed my Master's at Harvard in Computational Science and Engineering. I have experience in data science and software development, and I'm interested in applying my skills to solve problems in finance and healthcare. I enjoy working in fast-paced environments and in collaborative teams. Previously work includes developing machine-learning models to predict potassium levels in ICU patients and building computational pipelines that efficiently analyzed DNA-sequencing data and presented meaningful statistics and insights.

Check out some of my work on my Github: <https://github.com/bhavenp>.

Experience

Personal Capital

2 years 8 months

Senior Software Engineer

March 2022 - Present (1 year 2 months)

Software Engineer

September 2020 - March 2022 (1 year 7 months)

Boston Children's Hospital

Student Researcher, Machine Intelligence Lab

February 2019 - May 2020 (1 year 4 months)

Boston, Massachusetts, United States

While at Harvard, I completed my Master's thesis under the supervision of Dr. Mauricio Santillana. We collaborated with doctors in the pediatric intensive care unit to develop machine learning models to predict patients' blood potassium levels based on patient demographics and previous treatments. Our best models achieved >90% precision and 30-40% recall. We hope that these models can be incorporated into a clinical decision tool to help doctors and nurses reduce blood draws for ICU patients. This work is described in

our paper that was published in Pediatric Critical Care Medicine - <https://pubmed.ncbi.nlm.nih.gov/33332868/> .

Harvard University

Head Teaching Fellow

August 2019 - December 2019 (5 months)

Cambridge, MA

As the Head Teaching Fellow for CS207: Systems Development for Computational Science, I helped teach a class of 130+ students and coordinate a group of 7 additional teaching fellows. My duties included:

- * Designing lectures on data structures, Docker, and Kubernetes. Lectures consisted of background content and in-class exercises, allowing the students to apply the lecture material immediately and ask questions in the process.
- * Organizing and grading homework assignments and lecture exercises.
- * Holding weekly office hours to help students better understand the material.

Personal Capital

Software Engineering Intern

May 2019 - August 2019 (4 months)

Redwood City

I developed a new microservice to mimic a crucial third-party service, allowing automated testing and faster production releases for Personal Capital Cash. Through this project, I gained experience with Spring, Docker, and AWS EKS. My second project involved creating a pipeline to automate the Docker image build process for microservices and the deployment of microservices to an AWS EKS cluster. Lastly, I built Jenkins CI/CD pipelines for internally used tools and services.

Stanford University School of Medicine

Research Assistant, Rohatgi Lab

June 2013 - July 2018 (5 years 2 months)

My work focused on developing computational tools to analyze insertional mutagenic screens and CRISPR-based screens targeting the Wnt and Hedgehog signaling pathways. I also developed a tool that automated the quantification of protein localization in microscopy images. These tools are publicly available through my Github profile: <https://github.com/bhavenp>. This work has led to 5 publications.

Education

Harvard University

Master's of Engineering, Computational Science and
Engineering · (2018 - 2020)

Stanford University

Bachelor's Degree, Biology, Concentration in Biochemistry and Biophysics |
Minor in Computer Science · (2012 - 2016)

Junipero Serra High School

· (2008 - 2012)