

Contact

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(LinkedIn)

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Top Skills

Bioinformatics

Computational Biology

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Languages

Spanish (Limited Working)

English (Native or Bilingual)

Certifications

AWSome Day: AWS Cloud Training

C++ and Object Oriented
Programming

AWS Fundamentals Specialization

Big Data & Hadoop

Python 3 Programming
Specialization

Honors-Awards

Technology Recognition Award

Genomics & Data Science - Platform
Award

People Spotlight

Predictive Analytics Challenge -
2016

Genomics & Data Science - Platform
Award

Publications

Meta-analysis to test the association
of HIV-1 nef amino acid differences
and deletions with disease
progression

Genome architecture and evolution
of bacterial pathogens

Data driven decisions for accelerated
plant breeding

Pushker Ravindra

Data Science | Engineering | Analytics

Bengaluru

Summary

B.Tech. from IIT Kanpur, Ph.D. from UCD Ireland and Executive General Management from IIM Bangalore. 13+ years of experience at international R&D organizations across academia, startups, and MNCs. Successfully transformed multiple projects to Agile and implemented DevOps / DataOps. Passionate about the best practices in data science & engineering, internal employee up-skilling via Data/Digital Fluency, and external talent development via data science outreach. Currently, leading Data Science & Engineering team at Bayer Crop Science, Bangalore, and enabling data modernization, automation of data pipelines, to build enterprise data assets for crop science.

Experience

Bayer Crop Science

2 years 1 month

Data Science & Engineering Lead

July 2020 - Present (2 months)

Bengaluru, Karnataka, India

- Leading Data Science & Engineering team.
- Promoting best practices in data science & engineering, internal employee up-skilling, and external talent development via data science outreach.
- Leading Data/Digital Fluency, the internal employee up-skilling program where they get trained in latest data science skills.

Data Engineering Lead

January 2020 - June 2020 (6 months)

Bangalore

- Led Data Engineering team to enable data modernization and automated data workflows via data engineering solutions.

Data Analytics Lead

August 2018 - January 2020 (1 year 6 months)

Bangalore

Comparison of prokaryotic diversity at offshore oceanic locations reveals a different microbiota in the Mediterranean Sea

The silencing of pseudogenes

- Led Data Analytics team, building analytics solutions including predictive and prescriptive analytics.
- As Data Fluency Lead, mentored 200+ employees and promoted external talent development via data science outreach to 1000+ postgraduate students.

Monsanto

Data Analytics Lead

July 2013 - August 2018 (5 years 2 months)

Bangalore, India

Data Analytics Lead, Data Scientist, Computational Biology Scientist, Data Fluency Lead, Project/People Manager, Agile Transformation Lead

- Led Data Fluency, the data science up-skilling program for internal employees and mentored 200+ people from IT (R&D, Breeding), Data Science, Digital Foundation, Shared Services and Competitive Intelligence groups.
- As an Agile Transformation Lead, successfully transformed multiple projects to Agile - Scrum / Kanban and managed in Jira. Used Xtreme Programming concepts such as Pair Programming, Code review and Unit Testing.
- Implemented data science best practices such as coding best practices, documentation, packaging, version control and followed DevOps / DataOps to deliver sustainable data products.
- Designed and developed robust, relational and normalized databases containing more than 1 billion rows on MySQL / PostgreSQL RDBMS for 10+ data products.
- Delivered cross-functional data science projects for Yield / Microbial Traits, Biologics, Genomics & Data Science and R&D IT functions across India and USA.
- Coordinated internship program for 10+ students from premier institutes (IIT/IIIT/NIT) and mentored 5 students.
- Developed an automated microbial risk assessment pipeline for the \$300 million BioAg Alliance (a cross-industry collaboration between Monsanto and Novozymes) and automated generation of USDA permit reports.
- Part of team that organizes Data Innovator, a monthly cross-functional Data Science hackathon for collaborative learning and solving regional data challenges.
- Introduced Data Science to 1000+ biotechnology postgraduate students in Bangalore to develop external talent.
- Received 25+ program, platform, technology / focused / special recognition, iCARE and cross-functional awards.

Genome Life Sciences

Scientist - II

March 2011 - March 2013 (2 years 1 month)

Chennai, India

Scientist, Head (Software Development), Project/Reporting Manager

- Head (Software Development) for a web-based next generation sequencing data product, developed using Catalyst framework, handling Illumina GA/HiSeq, Roche 454 and ABI SOLiD platforms.
- Supervised design and development of mRNA Sequencing (mRNA-seq), Whole Genome Sequencing (WGS), Exome sequencing (Exome-seq) and Methylome-seq pipelines for all platforms.
- Supervised service projects on de novo assembly of carrot genome and transcriptome analysis of zebrafish.
- Contributed to writing grant proposals for various grant agencies such as Federal Business Opportunities (FBO).
- Contributed to business development activities such as revamping the whole website of Genome (GIC), USA.

University College Dublin

Graduate Student

April 2006 - September 2010 (4 years 6 months)

Dublin, Ireland

Supervisors: Prof. Denis C. Shields and Dr. Jean-Marc Jacqu 

- Performed meta-analysis of more than 3,000 HIV-1 nef proteins in 582 subtype B HIV-infected patients from different disease progressions.
- Surveyed protein disorder in 80,000 proteins from 2,500 viruses to demonstrate that protein disorder varies very strikingly between and also within viral families.
- Investigated the presence of 150 eukaryotic linear motifs (ELMs) in 1,600 eukaryotic viruses to demonstrate that viruses are enriched with short linear motifs.

Universidad Miguel Hern ndez

Research Fellow

July 2003 - March 2006 (2 years 9 months)

Alicante, Spain

Supervisors: Prof. Francisco Rodr guez-Valera and Dr. Alex Mira

- Led Bioinformatics software development for 2 European Commission projects related to Metagenomics - Gemini (Gene mining of metagenomes for novel enzymes and therapeutics) and Miracle (Microbial marine communities diversity: from culture to function) involving more than 10 EU countries.
- Worked with multidisciplinary teams of summer interns, Postgraduate or PhD students, Postdocs and Professors from life sciences domain and managed up to 4 projects simultaneously.
- Investigated evolution of genome size and architecture of more than 200 bacterial genomes (8 publications).
- Designed and developed Micro-Mar: world's biggest marine microbial biodiversity database along with a few other databases – IWoCS, RISSC and RNAGeneTracer.
- Installation, configuration, troubleshooting, administration of Linux, Apache HTTP and MySQL database servers.

Institute of Genomics and Integrative Biology

Research Fellow

January 2002 - June 2003 (1 year 6 months)

Delhi, India

Supervisors: Prof. Samir K. Brahmachari and Dr. Debasis Dash

- Part of a team of undergraduate students from IITK invited by Prof. Samir K. Brahmachari (Founding Director, IGIB; Former Director General, CSIR) to be consulted for a few challenging Bioinformatics projects at IGIB.
- Team Lead for India's first commercial Bioinformatics software product by CSIR - PLHoST (Peptide Library Based Homology Search Tool for Functional Annotation), branding by EY and marketed by Jalaja Technologies.
- Designed and developed CoPS (Comprehensive Peptide Signature Database) with 12,076 invariant peptide signatures derived from 52 bacterial genomes (Prakash et al., Bioinformatics, 2004).
- Designed a software to schedule oligonucleotide synthesis by ABI DNA Synthesizer (ABI 3900) that requires an optimization of each nucleotide to be used for each run of the machine.

Education

University College Dublin, Ireland

Doctor of Philosophy, Bioinformatics

Indian Institute of Management, Bangalore

Executive General Management Program, General Management

Indian Institute of Technology, Kanpur

Bachelor of Technology, Electrical Engineering