SHIVAPRASAD PATIL, PHD

Associate Director Predictive AI & Data | AstraZeneca | shivaprasad309319@gmail.com | LinkedIn | Website | Google Scholar

Dynamic and results-oriented Scientist with over 10 years of experience in clinical and preclinical biomarker research, driving the translation of drug discovery into clinical applications. Skilled in leveraging AI and data-driven approaches to accelerate biomarker identification, optimize study design, and enhance translational research outcomes in precision medicine.

EXPERIENCE

10/2024 - Present
Associate Director Predictive AI & Data | AstraZeneca | Barcelona

- Implementing new predictive capabilities using AI and bioinformatics to translate omics and imaging data to discover novel mechanisms of action for compounds.
- Building in silico capabilities to advance multi-omics technologies at both the bulk and spatial levels to refine tox predictions for accelerating CD prioritization.
- Developing AI models to pinpoint predictive morphological features from Cell Painting that yield detailed, cost effective safety insights.
- Building models for Global Proteomics that provide deep mechanistic insights to improve compound selection.

07/2022 – 09/2024
Computational Biologist | GSK | Heidelberg

- Expert in analyzing clinical trials data for multi-omics integration (transcriptomics, auto-antibody array, single cell & proteomics) for SLE, providing biological insights, biomarker discovery, and clinical development strategies leading to prioritization of 2 new assets.
- Skilled in identification and development of translational signatures that enhance indication expansion and model translatability, fostering advancement in drug development.
- Knowledge of biological mechanisms and application of bioinformatics and machine learning tools, data mining and visualization software to discover novel drug targets or biomarkers through mining of diverse clinical and non-clinical data.
- Well-developed oral and written communication skills, with an ability to communicate scientific and technical information effectively to non-experts in bioinformatics to enable data-driven decision making across research pipeline.

06/2019 – 06/2022
Bioinformatician | National Center for Radiation Research in Oncology - University Hospital Dresden

- Experience assisting in the design of project utilizing data from preclinical models and human studies to establish biomarkers of target modulation, disease heterogeneity and progression, and treatment response resulting in discovery of 3 novel biomarkers for personalized oncology using AI models.
- Experience of working collaboratively with disease area biology experts leading to clinical translation of a biomarker from in vivo pre-clinical models to patients for improving risk stratification for personalized therapy.
- Experience curating, standardizing (covering QC) and integrating diverse clinical and biological data sets from 10 clinical cancer cohorts and 3000 patients in a format suitable for bioinformatic analysis.

08/2017 – 09/2018
Bioinformatics Research Associate | Katholieke Universiteit Leuven | Belgium

- Demonstrated enthusiasm for learning and applying new data science methods and workflows, by deciphering complex clinical omics datasets resulting in identification of biomarkers for diagnosis of early liver fibrosis in 200 patients.

- Fluent in common scripting and programming language (R, Python) and familiarity with public domain data sources and programmatic interfaces resulting in development of >10 end-to-end novel bioinformatic workflows.

08/2015 – 07/2017
Bioinformatician | Institute of Genomics & Integrative Biology | New Delhi, India

- Delivered a data analytic platform to analyze Whole Genome & Exome sequencing data as part of the GUaRDIAN project collaborating with over 280 clinicians and 60 medical centers in India to identify novel variants in rare genetic diseases.
- Developed a pipeline for RNA-sequencing data analysis that led to identification of >60,000 novel circular RNAs to study their role as biomarkers in cancer.

EDUCATION

- Doctor of Philosophy (PhD) | Biostatistics | Technical University Dresden | 2019-22
- Integrated BS-MS | Indian Institute of Science Education and Research, India | 2010-15

SKILLS

- Analysis of bio-medical data from clinical trials.
- AI/ML techniques for biomarker discovery.
- Data mining and Multi-omics data integration.
- Genomics and Bio-statistics.
- Cross-functional collaboration.
- Critical thinking and Decision making.
- Preparing reports and presentations for scientists from diverse backgrounds.
- Linux, Version-control systems & High-performance computing environments.
- Exceptional communication – written & verbal.
- Building bioinformatics pipelines.

AWARDS

- Helmholtz-Zentrum Dresden-Rossendorf Fellowship, 2019.
- Scientific Mobility Grant, Franco-German University, 2019.
- Grant for biomarker identification for microbial transplant therapy for NASH - MicrobLiver, Novo Nordisk Foundation, 2018.
- Finalist SciGenom Research Foundation, 2016.
- Innovation in Science Pursuit for Inspired Research Fellowship, Department of Science & Technology India, 2010-15.

INTERESTS

- Fitness & Sports.
- Biographical Literature.
- Hiking.
- Creative writing.
- Medical Volunteering at rural camps in India.

LANGUAGES

- English, Hindi, Kannada, Marathi, German, Punjabi.