

# Pinaki Bose

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## Summary

Creative problem solver and leader with a diverse range of skills. Passionate about using technology for improving healthcare. Great at bridging the gap between science and technology. Attentive to detail and adept at managing multi-disciplinary projects and building cross-functional relationships.

## Professional Experience

### Exact Sciences

*Manager, Technology | Feb 2021 – Present*

- **Product Owner** and lead for a major software project (LIMS) supporting one of the company's largest development goals (MCED). Leading a team of 7 specialists and 40+ offshore engineers.
- Experience with **new hiring**: writing job descriptions, interviewing, candidate selection, onboarding.
- Preparing for CAP/CLIA validation and 21 CFR Part 11 / GxP **software validation** of LIMS.
- **Directing multiple teams** to meet business objectives. Designing new teams and processes by bringing people together across functions. LIMS Team, Product Support, and Lab IT / Barcoding.
- Defining **long-term vision** of Thrive IT systems and software post-acquisition by Exact Sciences.

### Thrive Earlier Detection Corp

*Associate Manager, Laboratory Informatics | Mar 2020 – Feb 2021*

- **Led a team** of 3 business analysts and 30+ offshore engineers in building the company's largest software project. Worked closely with cross-functional stakeholders and defined program priorities.
- Designed ways-of-working based on **Agile** principles and improved processes based on feedback.
- Led **sprint planning** and prioritization to support long-term and short-term business priorities from multiple teams, including Product Development, Operations, and Technology.

*Laboratory Informatician | May 2019 – Mar 2020*

- Key stakeholder in **build-vs-buy** decision for a new LIMS/ELN solution (decision: build).
- Launched new software project and served as a **thought leader** in design of new system.
- Developed integrations between legacy systems and new ones. Designed and led transition.

### PapGene, Inc.

*Scientist, Informatics | Dec 2016 – May 2019*

- Managed **laboratory informatics** and designed **sample tracking** systems for a biotech startup
- Managed laboratory data for the development and execution of a landmark 10,000-patient cancer early-detection study and several smaller studies. Over 500,000 containers tracked.
- Deployed, configured, and maintained **ClarityLIMS** for a 30+ person clinical laboratory. Built 150+ customization scripts and a **REST API** wrapper library in **Python**. Integrated LIMS with other systems, including: laboratory automation, **NGS** sequencers, **databases**, **dashboards**, etc.
- Developed dashboards and data visualizations using **R Shiny** and **SQL**.
- **Linux** system administration to support **LIMS**, dashboards, and other services.
- Established policies for software version control and **SDLC**.

# Skills

## People Management

- Cross-functional communication, collaboration, and leadership
- Designing high-performing teams by defining purpose, people, and processes
- Defining roles and responsibilities, experience with hiring and onboarding

## Software Engineering & IT

- Experience building and leading Agile teams for both software and other business needs.
- Experience leading large software engineering initiatives, e.g. designing and building new enterprise software for specialized business requirements.
- Familiarity with modern application development methodologies and technologies, including: DevOps, infrastructure-as-code (Azure), automated testing and CI/CD deployment pipelines
- Management of enterprise software through all phases: technology assessment, launch, customization to business requirements, maintenance, migration, and decommissioning
- Administration of both on-premise and cloud-based software
- Linux system administration and basic networking / IT knowledge

## Computational / Programming

- Python (pandas, numpy, PIL)
- R (tidyverse, shiny, ggplot)
- SQL (PostgreSQL, MySQL, T-SQL)
- Linux (bash/zsh, ArchLinux, CentOS, Ubuntu)
- Git (including git-flow model)
- DataBricks and Spark
- HTML, PHP, CSS (basic web development)
- JavaScript (Node.js, jQuery, D3)

## Molecular Biology

- PCR, cloning, cell culture (bacterial, mammalian, and viral)
- Fluorescence microscopy, Cryo-electron microscopy, FISH
- ELISA, western blot, gel electrophoresis, protein biochemistry
- NGS technology (Illumina sequencers)

# Education and Certifications

## Johns Hopkins University

*M.S. Chemical Biology | 2015*

## University of Texas at Arlington

*B.S. Biochemistry, Honors, Summa cum laude | 2011*

*B.S. Chemistry, Honors, Summa cum laude | 2012*

*Minors: Mathematics, Biology*

## Certificates

- Genomic Data Science specialization, Coursera / Johns Hopkins University | 2018
- Introduction to Unified Data Analytics with Databricks | Apr 2020