Ron Yadin

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Biologist turned R&D data engineering leader specializing in Benchling implementations, cloud data infrastructure & scientific software
Experienced with physical & digital lab automation, the Benchling Developer Platform & other cloud-native programmatic solutions
Turning complex R&D requirements into scalable, accountable, high-quality technical outcomes

Experience

BENCHLING | SOLUTION CONSULTANT - IT & DATA SCIENCE | SEPT 2025 – PRESENT
- Ramped rapidly on Benchling's sales process, contributing to several technical wins within year one
- Help bridge understanding between Sales, Product, Professional Services & Engineering internally, and IT leaders, data scientists & scientific SMEs externally - translating complex technical considerations into digestible narratives that resonate on both sides
- Prototype custom technical proofs-of-concept that de-risk genuinely hard use cases - building reusable demo & enablement material along the way, in close partnership with the enablement team
- Serve as SC go-to for HighRes Bio workcell opportunities, helping explore early motions for Benchling Automation qualification & demos
- Onboard new colleagues through hands-on sessions on *Tenant Admin Basics* & *Developer Platform 0 to 1*
- Represent the company on stage as a speaker - Benchling Innovation Day & the Swiss Digital Forum (May 2026)

21ST.BIO | ENGINEER II, SCIENTIFIC COMPUTING | APR 2025 – AUG 2025
- Championed the organization-wide effort to advance data utilization & insights generation
- Led the collaborative effort to craft, implement, and manage 21st.BIO's R&D data strategy & foundational data architecture
- **Managed & mentored a 3-person Scientific Computing team** (associate data engineer, ML intern & automation engineer), owning goal-setting, sprint planning & delegation to deliver the organization's core R&D data infrastructure initiatives on schedule
- Delivered foundational technical builds end to end: stood up 21st.BIO's AWS environment to security best practices, plus production-grade Benchling event integrations & Canvas Apps, while establishing modern engineering practices that scaled the team's build capacity
- Led evaluation & selection of external Benchling-integrating scientific software, project managing the PoC that drove purchase & adoption

21ST.BIO | ENGINEER I, SCIENTIFIC COMPUTING | JAN 2024 – APR 2025
- First member of 21st.BIO's dedicated dry lab
- Owned the requirements gathering, solution design & rollout of a generalized data model for complex, multi-round genomic engineering experiments
- Built software tools & pipelines to support scientific workflows, bioinformatics tools, and data transformation & loading processes
- Diligently generated clear documentation, organized & executed recorded demos & walkthroughs, and developed training material
- Helped lead digital project collaborations and manage relationships with various scientific software vendors

SHIRU | LAB DATA ENGINEER | JUL 2023 – DEC 2023
- Led the design and implementation of Shiru's unified Benchling data model for a 7-stage biomaterial research pipeline
- Developed automated, scalable, and user-friendly solutions for complex challenges around structured data capture, transformation, and visualization
- Facilitated collaboration between computational team, laboratory researchers across multiple groups, and company leaders

SHIRU | SENIOR RESEARCH ASSOCIATE, HIGH-THROUGHPUT SCREENING | AUG 2021 – JUN 2023
- Transformed Shiru's screening capabilities from unstructured, low-throughput experiments into a robust, automated high-throughput platform
- Designed and executed combinatorial experiments for optimizing microbial cultivation parameters and functional protein assays
- Helped lead Shiru's values committee to synthesize updated company values

SESTINA BIO | RESEARCH ASSOCIATE III, BIOENGINEERING | JAN 2021 – AUG 2021
- Executed core strain engineering activities including ideation, DNA part design, and precision genome editing via CRISPR-Cas system
- Verified engineered strains using cPCR, Sanger Sequencing, and long-read next generation sequencing
- Force-multiplied design efforts through Python tools development & automation using the Benchling Developer Platform

AMYRIS | ASSOCIATE SCIENTIST I & II, AUTOMATED STRAIN ENGINEERING | MAY 2018 – JAN 2021
- Leveraged laboratory robotics and advanced data infrastructure to execute automated pipelines for high-throughput DNA assembly, multiplexed next generation sequencing, and strain genotype verification
- Worked at the interface of data architecture, software engineering, and laboratory automation to advance core strain engineering capabilities
- Established project-based learning groups to train new team members with an engaging and relevant learning program

Education

INDEPENDENT STUDY | DATA ENGINEERING & DIGITALIZATION LEADERSHIP | JAN 2024 - PRESENT
- *Fundamentals of Data Engineering,* Joe Reis & Matt Housley (2022); *Fundamentals of Software Architecture*, Mark Richards & Neal Ford (2020); *Designing Data Intensive Applications,* Martin Kleppmann (2017), *Data Management at Scale*, Piethein Strengholt (2023)

UC BERKELEY | COURSEWORK TOWARDS MOLECULAR SCIENCE AND SOFTWARE ENGINEERING MS | AUG 2020 – OCT 2021
- Inaugural cohort of new masters program covering software engineering for scientific computing, data science, and machine learning

UC BERKELEY | MOLECULAR AND CELLULAR BIOLOGY B.A. | JAN 2014 – DEC 2017
- **Core Coursework**: Molecular Immunology, Molecular Endocrinology, Molecular Physiology, Genetics & Genomics, Cell Biology, Biochemistry
- **Minors**: STEM education, Spanish linguistics
- **Honors**: Distinction in General Scholarship, 5 semesters with Dean's Honors - top 4% of the College of Letters and Sciences

Skills

PROGRAMMING & SOFTWARE ENGINEERING

- Python
  - Data pipeline building - file parsing, pandas, Biopython, REST APIs
  - Visualization - matplotlib, plotly, seaborn
  - Statistics & modeling - scipy, sklearn, PyTorch
  - DevOps - version control (git), testing (pytest), CI/CD (CircleCI)
  - Deployment - JupyterHub, Flask, Docker & docker-compose
- SQL
  - Skills: schema design, DDL & DML, advanced query building
  - Tools: MySQL, Postgres, SQLAlchemy, psycopg2, Snowflake
- Proficient in HTML & CSS, basic C++
- Scientific software
  - Benchling R&D cloud LIMS application
    - Registry configuration, Insights queries, API & SDK automation
    - Dev Platform: Webhooks & App Canvases
  - Public biological databases & tools
    - GenBank, BLAST, AlphaFold, EMBL, UniProtKB, PDB
  - JMP & Spotfire
- Cloud Infrastructure
  - AWS: IAM, S3, EC2, ECR, API Gateway, Lambda, SSM, boto3
- Linux & command line interfaces

MOLECULAR BIOLOGY

- Microbial strain construction & verification
  - Genomic engineering - CRISPR-Cas & other systems
  - Nucleic acid purification, PCR design & visualization
  - DNA construct cloning, transformation, and sequencing
- Protein purification & characterization
  - HTP IMAC, ELISA, Thermal Shift Assay, Pierce660, Fluorescence assays
- Experience with a diverse array of lab instruments & liquid handlers

Data Engineering Project

- Bulk Primer Designer: Flask & MySQL web app with Dockerized multi-container architecture for automated PCR primer design
  - https://github.com/ron-yadin/bulk-primer-designer

Publications

- Ip, K., Yadin, R., & George, K. W. (2020). High-Throughput DNA Assembly Using Yeast Homologous Recombination. *Methods in molecular biology (Clifton, N.J.)*, *2205*, 79–89. https://doi.org/10.1007/978-1-0716-0908-8_5
- Christie, W., Yadin, R., Ip, K., & George, K. W. (2020). Highly Multiplexed, Semiautomated Nextera Next-Generation Sequencing (NGS) Library Preparation. *Methods in molecular biology (Clifton, N.J.)*, *2205*, 91–104. https://doi.org/10.1007/978-1-0716-0908-8_6

Volunteer Experience

SCIENCE AMBASSADOR | COMMUNITY RESOURCES FOR SCIENCE | NOV 2021 – FEB 2022

· Developed 4 virtual lessons & interactive activities on DNA and information encoding for a 4th grade class in Oakland Unified School District

ACTIVITY LEADER | COMMUNITY RESOURCES FOR SCIENCE + AMYRIS COMMUNITY OUTREACH | SEPT 2019 – JAN 2021

· Led hands-on activities as a team about yeast and fermentation in local Oakland elementary school classrooms
· Provided examples of diverse working scientists, and answered questions about college and careers in science
· Converted our in-person fermentation lesson into an accessible digital version, enabling us to participate in *distance learning* in fall 2020

BIOTECH VOLUNTEER | LAWRENCE HALL OF SCIENCE, BIOTECH LEARNING LAB | JAN 2019 – MAR 2020

· Contributed to the brainstorm of the Biotech Learning Lab design, and volunteered at several of the pilot public sessions working to engage and educate young students about the tools and scope modern biotechnology

APPRENTICE SCIENCE TEACHER | FIELDWORK IN BAY AREA PUBLIC SCHOOLS | JUN 2016 – DEC 2017

· Supported innovative STEM teachers in Berkeley and Oakland in science classes from biotechnology to computer science
· Engaged and aided students of all levels and backgrounds by encouragingly providing examples, explanations, and connections

MENTOR SCIENTIST | BERKELEY MIDDLE SCHOOL "BE A SCIENTIST" PROGRAM | JAN 2017 – MAY 2017

· Empowered six 7th graders to design their own scientific investigations, and guided them through designing data collecting experiments

INTAKE SPECIALIST AND TRANSLATOR | EAST BAY SANCTUARY COVENANT | AUG 2014 – DEC 2014

· Assisted in offering legal and social services for immigrants and refugees, mostly in Spanish, by conducting preliminary asylum interviews, interpreting psychological evaluations, translating court documents, renewing work permits, and answering phone calls