Johnny Rice, Massachusetts • (508) 479-9739 • jrice@qualityreact.com

Principal Scientific Data Engineer | Python, SQL, AWS, Informatics

Scientific software engineer with 10+ years building data systems and informatics solutions for pharmaceutical research. Proven track record partnering with research scientists to deliver data pipelines, automation tools, and analytical platforms that improve operational efficiency. Experienced in managing vendors, leading cross-functional projects, and translating research needs into scalable, reliable informatics capabilities.

Scientific Informatics Highlights

- 10+ years building informatics solutions for pharmaceutical and scientific research (RCH, Vertex, Pfizer)
- Designed data pipelines, automation scripts, and analytical tools supporting research operations
- Integrated scientific data platforms improving data storage, quality, and accessibility
- Managed external vendors and consultants, overseeing delivery and quality

Skills: Python, SQL, Postgres, AWS, Data Pipelines, Data Engineering, Scientific Informatics, Data Management, Data Modeling, ETL, APIs, Automation, CI/CD, Elasticsearch, Linux, Docker, Containerization, Cross-Functional Collaboration, Vendor Management, Technical Mentorship

---

Experience

Technical Advisor | Epipelagic Ventures | 2024–Present

- Lead technical teams building data-driven applications with Node, Python, SQL, and AWS
- Manage external contractors, overseeing delivery and controlling costs
- Shape technical strategy and roadmap with focus on scalability and future-proofing

Senior Data Engineer | RCH Solutions | 2022–2024

- Built AWS-hosted data platforms for scientific and semiconductor manufacturing clients
- Designed scalable data systems with a focus on quality, reliability, and maintainability
- Managed external vendors and consultants: scoped work, oversaw delivery, reviewed quality
- Defined engineering best practices later adopted across dozens of projects
- Led team focused on test-first development and quality assurance

Scientific Software Engineer | Vertex Pharmaceuticals | 2018–2021 | 2006–2011

- Partnered with research scientists as primary informatics contact, translating research needs into technical solutions
- Designed and built data pipelines and automation tools, improving research operational efficiency
- Integrated AWS, Elasticsearch, and SharePoint to improve data storage, quality, and accessibility
- Developed Python/Flask backend services with REST APIs for scientific data workflows
- Led cross-functional projects from requirements through production with research stakeholders
- Implemented automated testing and CI/CD pipelines, ensuring reliable, maintainable systems
- Created interactive data visualization tools, simplifying complex scientific data analysis

Scientific Software Engineer | Pfizer | 2001–2005

- Partnered with research scientists to design informatics solutions for sample management and project tracking
- Built dozens of data-driven applications supporting diverse research activities across full software lifecycle
- Improved research outcomes by aligning software capabilities with scientific community requirements
- Facilitated collaboration between scientists, IT, and management on data workflows and systems
- Championed reusable, modular code practices enabling scalable solutions for evolving research needs

Founder | Laboratory Automation Software | 2005–2009

- Founded scientific software company building laboratory automation and data management systems
- Led creation of custom informatics solutions tailored to scientific research workflows
- Oversaw full software lifecycle from requirements through production deployment
- Managed multidisciplinary teams delivering solutions for research professionals

Technical Instructor | Worcester State University | 2019–2024

- Taught Python, SQL, MySQL, AWS, and full-stack development
- Provided technical mentorship and project guidance to students entering tech careers

---

Earlier Experience

Medical Software Lead, UMass Medical School | 2000–2002 — Clinical trial data systems
Software Engineer, Iron Mountain | 2011–2014 — Enterprise data platform development