

Bobby Atwal

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PROFESSIONAL EXPERIENCE

Automated Data Engineer, Digital Health

01/2023 - Present

Johnson & Johnson, Innovative Medicine - South San Francisco, CA

- Jointly developed an Automated Data Engineering Platform in an FDA regulated pharmaceutical environment, ensuring GxP compliance and full software development lifecycle engagement
- Build end-to-end data pipelines for IoT wearable sensors (Actigraph, Corsano, Vital Patch, etc.) using Digital Health data from clinical studies accelerating compound discovery & drug development
- Design, develop, and deploy ETL/ELT processes for digital biomedical sensors, mobile apps, and AI/ML data using APIs, SDKs, and custom streaming in a cloud-based data warehousing environment
 - Technologies: Python, AWS S3 & EC2, MySQL, Databricks, Domino, Nexla, Tableau, PowerBI
- Utilize advanced data Transformers to automate data integration & validation for clinical Big Data sets, providing training and hands-on support to team members
- Architect advanced automated test scripts for platforms with GXP compliance and author Standard Operating Procedures (SOPs) to ensure standardization across regulatory processes
- Create ML pipeline cost prediction models and live visualization dashboards utilizing Tableau and PowerBI for actionable data analytics & performance insights within R&D for stakeholders
- Enhance system performance and scalability by monitoring & optimizing Virtual Private Cloud (VPC) infrastructure, compute resources, and pipeline designs resulting in significant reductions in expenditure

Software Engineer II, Software Support & Training Engineer

11/2021 - 11/2022

Thermo Fisher Scientific - San Francisco, CA

- Designed and developed a Full Stack Web Application using Django, Python3, JavaScript, eazyBI, Atlassian APIs, VMWare, and Windows IIS resulting in real-time, automated reporting and tracking of customer complaint handling metrics for clinical software products
- Responsible for providing Tier 2 level software and technical support to Field Teams for diagnostic software applications, EHR data, and qPCR instrumentation in clinical laboratories. Supported Thermo Fisher's Amplitude System (high-throughput, automated COVID PCR testing system capable of testing 8,000 patient samples/day and comprised of 30+ instruments & several softwares)
 - Supported global customer laboratories through the COVID-19 pandemic, in an FDA-regulated environment, to ensure customer needs are always met in a timely and compliant manner. Efforts led to meeting increased global customer clinical laboratories demand for COVID-19 testing and product line surpassing the \$1B revenue mark in June 2022 (yearly revenue > \$10B).
 - Identified root cause of customer complaints through debugging and team collaboration
 - Analyzed data anomalies to troubleshoot and identify potential product and quality issues (installation issues / unexpected software behavior).
- Established and maintained strong customer relationships - forwarded feedback from customers and field support regarding their product requirements, communicating their needs to R&D and Product Management for better software designs, feature enhancements, maintenance, and evolving needs in the laboratory
- Led week-long group trainings (35+ employees) & support to Field Support, Application Scientists, and managers for Atlassian Confluence / Jira, Virtual Machines with Linux, & releases of Genetic Testing Solutions (GTS) software; including new features, complaint resolutions, troubleshooting, and maintenance procedures

Systems Application Programmer
City of San Jose, San Jose, CA

01/2021 - 04/2021

- Developed a Full Stack responsive web application using Angular, TypeScript, JavaScript, OracleDB, Node.js, Docker, Bootstrap, HTML, JSON, LESS and CSS to provide accurate data analytics and projections to Finance Team and Project Managers on all CPMS projects (estimated budget > \$1 Billion)
- Managed Oracle database, performed CRUD operations, and created Views using Toad and SQL/PLSQL
- Created RESTful API's displaying budget expense data for Capital Project Management System projects with a functional UI/UX design
- Supported SaaS enterprise platforms such as Smartsheet for Daily Stand-Ups and Sprints
- Documented bugs and enhancements using Atlassian tools including JIRA, Confluence, and Bitbucket

Web Developer (Internship)
IBU Taproom & Bottle Shop, Milpitas, CA

03/2018 - 11/2018

- Delivered high-quality, well-designed website with technology such as JavaScript, HTML5, CSS3
- Worked alongside business team to analyze customer data resulting in actionable decisions based on industry trends and vendor engagement
- Utilized social media tools (Instagram & Facebook) for meaningful user engagement & brand advertising
- Mentored and guide non-technical team members on basic web design and troubleshooting

Student Employee, Nuclear Quality Assurance (Internship)
Electric Power Research Institute, Palo Alto, CA

07/2015 – 01/2017

- Developed and implemented Microsoft Access productivity tools for the tracking of QA processes in training & nuclear quality suppliers
- Modified QA databases to conduct validation & verification as necessary
- Improved QA training modules to boost employee engagement & satisfaction
- Wrote Queries and processed QA records for Quality Assurance and archiving
- Collaborated with QA team to provide trend analysis and monthly improvement ideas
- Presented results to management and nuclear training staff in meetings

EDUCATION

B.S. Computer Science, Graduation: December 2019

San Jose State University, San Jose, CA | GPA 3.6

A.A. Mathematics

Evergreen Valley College, San Jose, CA | GPA 3.8

TECHNICAL SKILLS

Programming Languages: Python, R, Java, TypeScript, JavaScript ES6+, HTML5, CSS3

Data Science: Python (PySpark, Pandas, NumPy, Scikit-learn), Tableau, PowerBI, MATLAB, Databricks, Bash, Git

Machine Learning: Time Series Analysis, Regression Models, Model Evaluation & Tuning, Feature Extraction

Data Processing: Data Preparation, Cleaning, Transformation, Integration, Validation, Filtering, Pattern Recognition

Databases & Tools: AWS S3, AWS EC2, MongoDB, MySQL, PostgreSQL, OracleDB, Heroku

Frameworks & Web Development: Django, React, Angular, Docker, NodeJS, Postman, D3, Selenium

Relevant Software Systems: Domino Data Lab, TrackWise, Agile, E1, Jira, Confluence, Salesforce, VMware

CITIZENSHIP STATUS

U.S. Citizen