Joanne Nguyen

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Professional Experience

Mission Bio | South San Francisco, CA 02/2022 - 10/2024

Research Associate II, Pharma Assay Development

- Optimized single-cell data capture through Tapestri multiomics and improved NGS library workflows, resulting in higher-quality data collection, leading to more reliable outcomes in client projects targeting cancer therapeutics
- Led multiple high-priority projects simultaneously, meeting tight deadlines and improving experiment outcomes
- Collaborated with R&D project leads to align projects goals, contributing to experiments that led to 5 publications
- Integrated molecular techniques (bulk NGS, qPCR, gel electrophoresis, cell fixation and oligo conjugation) into existing protocols, enabling greater insight for troubleshooting process development and downstream analysis
- Technical lead in optimization and validation of oligo conjugation protocol, critically improving yield by 95%
- Enhanced cell capture protocol, increasing usable data by 25% through laminar washing and PFA fixation
- Collaborated on database structure, refined SQL queries and visualized dashboards to improve NGS reliability
- Implemented Javascript automation tools to streamline data management, reducing processing time by 50% through automated real-time updates for sample tracking, inventory management, and data filtering
- Built a Python regex-based tool to automate protein tag pattern identification for statistical comparative models

Lifelabs Genetics | Toronto, ON 09/2020 - 01/2022

Site Lead 04/2021 - 01/2022

- Promoted within 7 months for demonstrating strong leadership in training and mentoring a 35-member team on high-complexity molecular assays, data analysis, and instrumentation for COVID clinical diagnostic analysis
- Developed and implemented CAP-compliant SOPs, ensuring assay consistency and regulatory adherence
- Analyzed qPCR data trends and presented findings to internal teams, identifying patterns in positivity rate
- Applied a design of experiments matrix to optimize positive control dilution, achieving a 60% cost reduction
- Designed a Python statistical algorithm tool to enhance reliability of qPCR and mass spectrometry results calling

Medical Laboratory Technician 09/2020 - 04/2021

- Ensured efficiency in high-throughput COVID RNA extraction, qPCR, mass spectrometry and analysis
- Coordinated qPCR and mass spectrometry workflows for 1000s of clinical samples a day with quick turnaround
- Led inventory organization and management by implementing Lean to reduce consumable waste
- Maintained, validated and calibrated qPCR analyzers and automated liquid handlers for optimal function

University of Toronto | Toronto, ON 05/2019 - 12/2019

Research Assistant, Plant Genomics

- Standardized and collected qualitative data to determine evolutionary resistance of agricultural herbicide
- Collaborated with lab members to support genomics research in the mechanisms of plant fertilization

Technical Highlights

Molecular Biology:	NGS & scNGS Library Prep, DNA & RNA Extraction/Quantification, Mass Spectrometry
Cell Biology:	Mammalian Cell Culture, Immunostaining, Cell Staining, Cell Imaging Analysis, Histology
Quality:	SOP Writing, ISO 9001, ISO 15189, CAP, QC/QA, GLP, GDP, HIPAA/PHI, EHS
Software:	Python, Javascript, SQL, Confluence, JIRA, Salesforce Cloud Coach, LIMS, LIS

Education

University of Toronto | Honors BSc in Human Biology of Health & Disease, Minors in Physiology & Biology