Alan Lin

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Experience

BCForward June 2022 - Nov 2023

Full Stack Developer

Principal engineer in the development and operation of bioinformatics pipeline for drug discovery process. I accomplished:

- Reduced operational overhead by 66% by creating a user-initiated automated pipeline.
- Improved user-experience by creating logging and email alerts.
- Created concordance analysis pipeline for orthogonal assays.
- Created control sequence/plate/well check.
- Resolved UI and performance issues in the Django web app.
- Improve sample acceptance rate by 20% by data analysis of historical sequencing data.
- Stack: Django, Python, Perl, Postgresql, React, Bash, Javascript, Unix/Linux

Invitae Aug 2020 - June 2022

Bioinformatics Analyst

Engineer of lab workflows and bioinformatics pipelines. I accomplished:

- Project manager for report tracking web application.
- Data analyst in digital array technology.
- Identified areas of process improvement and automated repetitive tasks.
- Sample and Batch sequencing OC data review.
- Manager of the team Github repo.
- Stack: Flask, Python, Bash, Postgresql, MySQL

Invitae Oct 2018 - June 2022

Clinical Laboratory Scientist (MB)

I processed clinical samples within a CLIA-certified clinical laboratory. Trained/mentored lab techs, DRI for assay development projects, analyzed sequencing data, etc.

Invitae Sept 2016 - Oct 2018

Clinical Lab Technician

Processing clinical samples for sequencing/imaging under CLIA and CAP regulations.

Technical Skills

Computer Related:

Languages:

Python, Javascript, Typescript, HTML, CSS, Bash, Perl, C++, Shell

Framework/Libraries/Utilities:

Jupyter Notebook, matplotlib, seaborn, plotly, ggplot2, numpy, pandas, NodeJS, ExpressJS, ReactJS, NextJS, JQuery, Axios, AWS (S3, EC2, RDS), CI/CD, Git, Docker, Django, Flask, Cron jobs, pytest, unit tests, HTML5

Databases:

SQL, SQLite, MongoDB, Postgresql, NoSQL, Datomic, datalog

Misc:

GitHub, Unix, Linux, Jira, Confluence

Biology Related:

Assays:

Next-Generation Sequencing using Illumina Platform (HiSeq 2500, HiSeq 4000, and NovaSeq 6000), Chain-Terminating Sanger Sequencing (ABI 3500xL), Multi-Ligation Probe Amplification, MLPA, Microarray-based Comparative Genomic Hybridization (Agilent Feature Extraction software), Preimplantation Genetic Screening/Testing (PGS/PGT), PacBio SMRT cell sequencing

Misc:

Bioinformatics, Molecular Biology, DNA sequencing, Laboratory Information Management System (LIMS).

Licenses & Certifications

California Department of Public Health

Jul 2018

Clinical Genetic Molecular Biologist Scientist (CGMBS)

American Society for Clinical Pathology (ASCP)

Oct 2018

Technologist in Molecular Biology (M.B.)

Education

City College of San Francisco

Nov 2023 - In Progress

Associate of Science (A.S.) - Computer Science

California State University - Los Angeles

Sept 2018

Post-Baccalaureate - Clinical Genetic Molecular Biologist Scientist (CGMBS)

University of California - Davis

Mar 2016

Bachelors of Science (B.S.) - Biological Science - Microbiology & Biotechnology emphasis