DAVID ZHANG

By bridging bioinformatics and engineering, I translate genetic and transcriptomic data into software that delivers real-world impact. With experience across the full software development lifecycle, I design, build, and deploy tools to solve bioinformatic problems from prototyping innovative solutions to implementing and maintaining robust, productionready pipelines.

WORK EXPERIENCE

Present 2024

Senior bioinformatics engineer

CoSyne Therapeutics

- London, UK (hybrid)
- · Optimise and scale machine learning tools for single-cell perturb-seg data comprising millions of cells. Apply these tools to generate actionable insights and inform strategic decisions around company direction.
- Design and deploy a data pipeline to ingest, tidy and version-control data for the CoSyne knowledge graph. Automate the release of the graph to AWS using terraform and CI/CD, improving the efficiency and traceability of data updates.
- Build and maintain infrastructure tooling including docker images, terraform modules, CI/CD workflows and cruft templates to streamline bioinformatics analyses.

2024 2022

Senior bioinformatics software engineer

Hinxton, UK (hybrid)

- Developed scalable nextflow pipelines to process solid tumor DNA-sequencing data covering alignment, variant calling, driver mutation annotation, and therapy matching.
- Built python and R packages to improve the efficiency of clinical verification, reducing time taken by 2 weeks per quarterly release.

2021

Bioinformatician internship (2 months)

Verge Genomics

• London, UK (remote)

• Created a reproducible aberrant splicing detection pipeline using docker for drug target discovery in C9orf72 ALS patients.

EDUCATION

2022 2017

PhD, Bioinformatics

University College London

- O London, UK
- · Analysed bulk RNA-sequencing data with the aim of improving the diagnosis rate of rare disease patients. Focussed on detection of abberant splicing events as a strategy to prioritise pathogenic variants.
- Released R/Bioconductor packages that enable bioinformatics analyses and interpretation. Championed best practices for software development through teaching workshops and courses.

2016 2015

MSc, Neuroscience

University College London

O London, UK

· Grade: Merit (68%)

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CONTACT

- ✓ dyzhang32@gmail.com
- Website
- GitHub
- in LinkedIn
- **G** Google Scholar

LANGUAGES

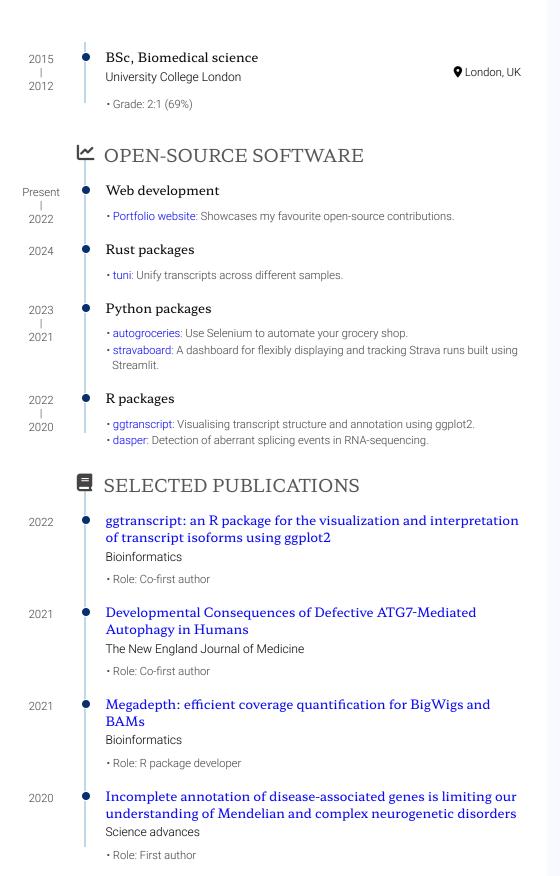
- Python
- **Q**R
- Rust
- </>Bash

TECHNOLOGIES

- Git.
- **S** Nextflow
- Docker

aws AWS

Kubernetes



A complete list of my publications is available via Google Scholar