





# DAVID ZHANG


Experienced bioinformatician who enjoys learning and applying the best practices for method development. I focus on developing robust, user-friendly tools that harness transcriptomic data to improve the rate of genetic diagnosis.

View this CV online with links at [dzhang32.github.io/cv/](https://dzhang32.github.io/cv/)





## EDUCATION

- Present  
|  
2017
- **PhD, Bioinformatics**  
University College London  London, UK
    - **Thesis:** Using transcriptomics to improve the genetic diagnosis rate of rare disease patients.
- 2016  
|  
2015
- **MSc, Neuroscience**  
University College London  London, UK
    - **Thesis:** The role of mitochondrial dysfunction in Xeroderma pigmentosum
    - **Grade:** Merit (68%)
    - Awarded post-graduate support scheme bursary (£10,000)
- 2015  
|  
2012
- **BSc, Biomedical science**  
University College London  London, UK
    - **Thesis:** Investigating the function of CYFIP1 in the development of rat hippocampal neurons.
    - **Grade:** 2:1 (69%)
- 2012  
|  
2007
- **H.S.**  
Queen Elizabeth's School  Barnet, UK
    - **Grades:** Maths (A\*), Biology (A\*), Chemistry (A\*), Sociology (A).

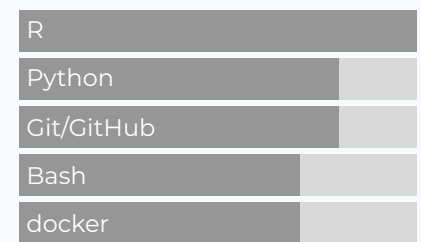
## WORK EXPERIENCE

- 2021
- **Bioinformatician internship (2 months)**  
[Verge Genomics](#)  Remote, US
    - **Goal:** Set up an aberrant splicing detection pipeline for drug target discovery in C9orf72 ALS patients.
    - Used **docker** to setup a reproducible workflow<sup>1</sup> for running aberrant splicing analyses on an **AWS** instance.

## CONTACT

 [dychang32@gmail.com](mailto:dychang32@gmail.com)  
 [GitHub](#)  
 [LinkedIn](#)  
 [ResearchGate](#)

## LANGUAGE SKILLS



The long-form version of my CV with a list of selected publications is available [here](#).

Made with the R package [datadrivencv](#) and [pagedown](#).

The source code is available at [github.com/dzhang32/cv](https://github.com/dzhang32/cv).

Last updated on 2022-03-24.



## SOFTWARE & PROGRAMMING

Present  
|  
2020

### ● Bioconductor packages

- dasper<sup>2</sup>: Detection of aberrant splicing events in RNA-sequencing. **Author** and **maintainer**.
- megadePTH<sup>3</sup>: BigWig and BAM related utilities. An R wrapper for the megadePTH software developed by Chris Wilks. **Co-author** and **maintainer**.
- ODER<sup>4</sup>: Optimising the definition of Expressed Regions. Submitted to Bioconductor. **Co-author** and **maintainer**.

Present  
|  
2022

### ● R packages

- ggtranscript<sup>5</sup>: Visualising transcript structure and annotation using ggplot2. **Author** and **maintainer**.
- autorecipes<sup>6</sup>: Automate your recipe planning. **Author** and **maintainer**.

Present  
|  
2021

### ● Python packages

- autogroceries<sup>7</sup>: Automate your grocery shop. **Author** and **maintainer**.
- codino<sup>8</sup> converts a codon design to the expected amino acid frequencies, and vice versa. **Author** and **maintainer**.

2021

### ● Web scraping

- Applied the python packages **Beautiful Soup** and **Selenium** to web scrape<sup>9</sup> information on all UK biotechnology companies.

2021

### ● Data science blog

- Chess-related blog post<sup>10</sup> was selected for the hand-on-tutorials column in Towards Data Science, which displays pieces that highlight best practices of data science.
- Applied popular data science packages in **python** to analyse<sup>11</sup> chess.com data.



## LINKS

- 1: [https://github.com/dzhang32/auto\\_splice](https://github.com/dzhang32/auto_splice)
- 2: <https://bioconductor.org/packages/release/bioc/html/dasper.html>
- 3: <https://bioconductor.org/packages/release/bioc/html/megadePTH.html>
- 4: <https://github.com/eolagbaju/ODER>
- 5: <https://github.com/dzhang32/ggtranscript>
- 6: <https://github.com/dzhang32/autorecipes>
- 7: <https://github.com/dzhang32/autogroceries>
- 8: <https://github.com/dzhang32/codino>

- 9: [https://github.com/dzhang32/biotech\\_web\\_scrape](https://github.com/dzhang32/biotech_web_scrape)
- 10: <https://towardsdatascience.com/how-has-the-queens-gambit-impacted-the-popularity-of-online-chess-43594efe5a98>
- 11: <https://github.com/dzhang32/chess>