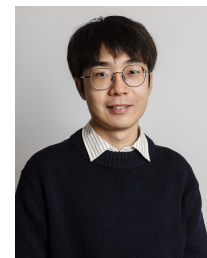


Chunxu Han

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Relevant Experience

Quantitative Analysis & Statistical Modelling

I study bioinformatics, a field at the intersection of biology, statistics, and data science, and have two years of work experience at DTU HealthTech. I contributed to the development of the **R package** [IsoformSwitchAnalyzeR](#), including the introduction of a new statistical framework for isoform-switch analysis. Through this work, I gained hands-on experience in quantitative modelling, benchmarking, and data visualisation, which has contributed to a research paper currently under review.

AI-Powered Pipeline Development

I have also explored how state-of-the-art data science and machine learning methods can be applied to real-world problems. In my academic work, I have integrated machine learning and deep learning approaches into bioinformatics research workflows. Meanwhile, I have developed independent projects, including an AI-powered job search agent [DailyJobMatch](#) for personalised job matching and a data pipeline for analysing trends in the Danish job market.

Data Translation & Consulting

During my full-time internship at the marketing consulting firm Illuminera (IQVIA), I worked on **quantitative market research** projects, including **social media listening**, for pharmaceutical clients. I developed experience in transforming data and analysis into clear, actionable recommendations and in tailoring presentations and deliverables to different audiences and stakeholders. This strengthened both my consulting mindset and my ability to communicate analytical insights effectively.

Education

MSc in Bioinformatics and Systems Biology, Technical University of Denmark

Lyngby, Denmark
Sept 2023 - Mar 2026

- Completed coursework in **Machine Learning** and **Deep Learning**, strengthening my ability to design data-driven analytical workflows and apply modern modelling approaches.

Work Experience

Master Student, Novo Nordisk

Målev, Denmark
Sep 2025 - Mar 2026

My master's thesis focuses on developing computational frameworks to evaluate batch-to-batch variability in single-cell RNA-seq data:

- **Methodology development:** Developed Batch Mixing Index (BMI), an entropy-based metric that quantifies per-cell batch mixing and incorporates **permutation-based statistical testing**, as well as scBatch, a **Python package** integrating seven complementary metrics for manufacturing batch variability assessment.
- **AI/ML approaches:** Explored state-of-the-art data science approaches by applying the Deep Learning model to embed cell therapy batches into a shared latent space for variability assessment.

Bioinformatics Research Assistant, DTU HealthTech

Lyngby, Denmark
Oct 2023 - July 2025

I worked in Isoform Analysis Group for two years, which has been a transformative experience. I have grown from a student who only focuses on theoretical studies into a bioinformatician to deal with real-world problems:

- **Development and Maintenance of R Tools:** Contributed to developing and updating the [IsoformSwitchAnalyzeR](#) R package. This experience sharpened my coding skills and can-do mindset.

- **Large-scale Data Analysis Pipelines:** Built and optimised processing pipelines for large-scale, high-dimensional data analyses, including automation, quality control, reproducible workflows, HPC-based parallel processing, and version control with Git.
- **Cross-Team Analytical Support:** Collaborated daily with PhDs, postdocs, and master's, helping with data preprocessing and pipeline running. This strengthened my teamwork skills and equipped me with a **collaborative mindset**.

Consulting Intern, Illuminera, IQVIA

Shanghai, China
Feb 2023 – May 2023

My first experience in a business setting, where I gained insights into the pharmaceutical market and developed professional skills:

- **Qualitative and Quantitative Research:** Conducted market trend and competitor analyses to develop actionable strategies for clients, while building a strong understanding of the pharmaceutical market in China and globally.
- **Social Media Listening:** Led a social media listening project using platforms such as RedNote and online hospital communities, collecting and analysing large-scale user data to identify product gaps, map patient and consumer preferences, and generate strategic recommendations for **product positioning** and **targeted commercial campaigns**.
- **Client and KOL Engagement:** Built professional relationships with clients and KOLs and coordinated with stakeholders to align project progress and delivery.
- **Data-Driven Deliverables:** Utilized tools like PowerPoint and Power BI to deliver strategic reports, transforming complex data into actionable business insights. I learned how to formulate the business problems and storytelling to the clients.

Hobby Projects

Job Searching Agent

Developed [DailyJobMatch](#), an automated job-matching agent that integrates web scraping, LLM-based scoring and workflow automation to collect, filter, and rank relevant job postings. Until now it has received 120+ stars on Github and around 5k likes on social media. I feel really rewarding to be able to leverage modern data science tools to real-world problems and contribute the community and help others.

Bioinformatics Jobs Landscape analysis

Developed a Danish bioinformatics job market analysis pipeline that scrapes and enriches 2,500+ job postings from jobindex.dk over a 5-year period. The project combines Playwright-based web scraping, GPT-4o for structured skill and sector extraction, and custom visualisations to map hiring trends, in-demand skills, and the rise of AI requirements across academia and industry. Built as a personal project to understand the job landscape before starting my own search.

Skills and Hobbies

Programming: Python, R, Bash, SQL, Snakemake

Languages: English (proficient), Chinese (native), Danish (Basic)

Soft Skills: Communication, Teamwork, Client Engagement, Multitasking, Critical Thinking, Strong Work Ethic

Hobbies: I've been playing **badminton** since an early age—it's a hobby that keeps me focused and energized. During holidays, I enjoy **traveling** around Europe to experience new food and cultures. I also love **hiking**, both for the chance to connect with nature and for the challenge of seeing hidden scenery that isn't easily accessible. After moving to Denmark, I discovered a new passion: **sailing**. Last summer, we sailed to Ven and Hallands Väderö, and it was a completely new experience, and I felt free to ride the infinite waves.