

# Jonathan Tybirk

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 [github.com/jonathantybirk](https://github.com/jonathantybirk) ↗

 [jonathantybirk.com](https://jonathantybirk.com) ↗

## Profile

## Education

**BSc Artificial Intelligence and Data student, Technical University of Denmark**  
*September 2023 - current*

- **GPA: 11.1 / 12**
- Taking extended courses in **Algorithms** and **Data Structures**
- 6th-place finisher in DM in AI 2024 under team name *Powered by SmartFridge*

## Experience

**Mission Control Developer, Danish Student Association for Rockery**  
*September 2024 - current*

- Implementing **unit testing** and **logging** in a large **C# codebase**
- Refactoring old code to follow sensible structure and **design patterns**

**Student Assistant, Copenhagen Applied Research A/S**  
*April 2024 - current*

- Implementing **Python automation scripts** for data collection and processing

**Teaching Assistant, Technical University of Denmark**  
*January 2024 - current*

- Teaching 120 students **Python Programming** as Assistant Lecturer
- Teaching **data science**, and **machine learning** as Teaching Assistant in Statistics and Intelligent Systems
- Helped convert the course textbook and exercises from **R** to **Python**

## Projects

**Full-stack website (React, TypeScript, CSS, PostgreSQL)**  
*July 2024 - current*

- A dynamic self-deployed website to show off my projects
- Integrated **frontend** and **database** with appropriate **code structure**
- View my other projects there: [jonathantybirk.com](https://jonathantybirk.com) ↗

**Modelling of membrane degradation (NumPy, pandas, SciPy, scikit-learn)**  
*March 2024 - May 2024*

- Paid contract work to data model for *Aprisium Pte. Ltd.*, a Singapore-based environmental services start-up
- Extensive **code documentation** and **data visualizations** (Matplotlib)

**Self-Operating Computer (LangChain, OpenAI API, AWS)**  
*February 2024 - May 2024*

- Work done for start-up *Symbolik.ai* to gain experience on larger projects
- Program to visually perceive a computer screen and navigate with mouse and keyboard, built with **Python** and **GPT-4V**



## Coding Languages / frameworks

C# / .NET  
Python / PyTorch / LangChain  
SQL / PostgreSQL  
TypeScript / React / HTML / CSS  
Git / Markdown

## Languages

Danish, native  
English, fluent  
Spanish, beginner  
German, beginner

## Additional qualifications

- Chairman of the student council for 250 students at *Gymnastikhøjskolen i Ollerup*. I greatly improved efficiency over previous years by prioritizing the delegation of responsibilities to small task-groups.
- 4-month army enlistment on Bornholm. This taught me to teamwork effectively even under stressful conditions. I am now continuing my training in the Danish Home Guard.
- Experience performing music as guitarist and front singer - this has helped me get over a fear of public speaking.
- Cultural insight from solo-backpacking many times across Europe. I like working with international and diverse groups of people.
- Great joke-teller according to my programming students!

