



✉ jonathantybirk@gmail.com



🏠 2800 Kongens Lyngby



linkedin.com/in/jonathantybirk ↗



github.com/jonathantybirk ↗



jonathantybirk.com ↗

Profile

AI and Data Science student with hands-on experience in software development and automation, including testing, documentation, and maintenance of IT systems.

Skilled in Python and C# for data processing and object-oriented programming, with practical experience developing and testing code in large systems. I have contributed to projects involving .NET and the automation of data processing tasks, and I'm familiar with industry tools like Git and Slack for collaboration. My project portfolio reflects my commitment to learning and delivering on tasks from start to finish.

Education

BSc Artificial Intelligence and Data student, Technical University of Denmark

September 2023 - current

- [GPA](#): 11.1 / 12.0
- Taking [extended courses](#) in **Algorithms** and **Machine Learning**
- 6th-place finisher in DM in AI 2024 under team name *Powered by SmartFridge*

Experience

Developer on the Mission Control System, DanSTAR

September 2024 - current

- Implementing unit testing and logging in a large **C#** codebase using the **.NET Framework**
- Refactoring and writing documentation in a team with other developers
- Using **Git** for version control and **Slack** for team communication

Student Assistant, Capres A/S

April 2024 - current

- Developed and implemented **Python** automation scripts for data collection and processing, significantly reducing manual workload

Contract Data Scientist, Aprisium Pte. Ltd.

March 2024 - May 2024

- Modeled membrane degradation in electrochemical sensors using **Python** (**pandas**, **NumPy**, **scikit-learn**, **SciPy**).
- Wrote extensive documentation in-code and with **Markdown**; data visualizations with **matplotlib** and **seaborn**

Teaching Assistant, Technical University of Denmark

February 2024 - current

- TA for *Statistics* and *Intelligent Systems*; teaching 120 students as Class Teacher in *Computer Programming*.
- Helped translate the Statistics textbook from **R** to **Python**

Army Enlistee at Almegårds Kaserne, Forsvaret

August 2022 - November 2022

- Maintained effective communication and problem-solving ability in a team under high-pressure conditions
- Now continuing my training at 1. Infanterideling at Hjemmeværnsskompagni Kongens Lyngby

Relevant Projects

Portfolio Website

July 2023 - current

- Dynamic website for personal projects with a **React** and **TypeScript** frontend, and a **PostgreSQL** database
- Deployed with **Vercel** and **Supabase**

[Visit the website](#)↗

Examination of Bias in Large Language Models

June 2024

- Evaluation of whether ChatGPT will rate the morality of actions differently if the user writes their own opinion
- Use of advanced statistical methods, including **aligned rank transformation** and **two-way repeated measures ANOVA**, with comprehensive assumption testing

[Read the report](#)↗

Self-Operating Computer

February 2024 - May 2024

- Program to visually perceive a computer screen and navigate with mouse and keyboard built with **Python**, **LangChain**, and the GPT-4V API for the start-up *Symbolik.ai* with two co-founders

Deep Q-learning Model

January 2024

- Multi-agent deep reinforcement learning models trained to play Pong using **PyTorch**
- Application of **algorithm time complexity** and **data structure** principles to reduce model training time

[Read the report](#)↗

Digital Skills

- Python, including common data science libraries, LangChain, and PyTorch
- .NET, including C#
- TypeScript, including React and Node.js
- SQL through PostgreSQL
- The Microsoft Office family, including Word, Excel, and PowerPoint

Language Skills

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

Additional

Playing and performing music has taught me creativity, the discipline to practice consistently, and the composure to handle high-pressure situations on stage.

Training in combat sports has developed my mental resilience and further improved my focus and consistency.

Solo travel during my gap years has helped me build independence and connect with people from diverse backgrounds.

