Danny Nygård Hansen
Curriculum Vitae

Aarhus, Denmark 📍
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💼 Work experience

Aarhus University » Teaching Assistant
2018– ⋄ Aarhus, Denmark

TA for undergraduate courses in the Departments of Mathematics and Computer Science at Aarhus University.

Aarhus University » Student Counsellor
2020–2021 ⋄ Aarhus, Denmark

Student counsellor for mathematics, statistics and science studies. Completed the internal counselling course at Aarhus University.

Happy Voices Gospel Choir » Pianist
2014–2016 ⋄ Viborg, Denmark

Pianist for amateur choir with around 50 members. Main responsibility for the accompaniment section and took part in arranging and planning our repertoire.

Freelance » Musician and music educator
2014–2016 ⋄ Viborg, Denmark

Performed at church services, receptions, birthdays and other occasions. Also given piano lessons, both privately and at workshops.

🏛 Education

Aarhus University » BSc in Computer Science
2021– ⋄ Aarhus, Denmark ⋄ GPA: 11.9/12

Specialisation in theoretical computer science.

Aarhus University » BSc in Mathematics
2018–2021 ⋄ Aarhus, Denmark ⋄ GPA: 11.8/12

Specialisation in mathematical physics and theoretical computer science. Completed the Mathematics Talent Track (30 ECTS).

[**Aarhus University**](#) » **Undergraduate studies in physics**

2016–2018 ◇ Aarhus, Denmark ◇ GPA: 12/12

Completed the first two years of a BSc programme in physics. Participated in the Physics Talent Track (completed 12 ECTS).

[**Kulturskolen Viborg**](#) » **'Musikalsk Grundkursus' (MGK)**

2014–2016 ◇ Viborg, Denmark

Three-year advanced music course with specialisation in jazz and classical piano. Completed the course in two years receiving the top grade, and received an offer of admission from the Royal Academy of Music in Aarhus.

[**Viborg Katedralskole**](#) » **Higher General Examination Programme (STX)**

2011–2014 ◇ Viborg, Denmark ◇ GPA: 12.1/12

Danish general upper secondary education programme. Specialised study programme in music and English with electives in physics and astronomy. Self-studied upper-level mathematics. Received Knud Valdemar Iversen and wife Ellen Iversen's grant for general proficiency.

🎓 Teaching experience

Teaching assistant ('instruktor') for the following courses:

- » *Computer Architecture, Networks, and Operating Systems*
  Spring 2023 ◇ Department of Computer Science, Aarhus University

- » *Introduction to Programming with Scientific Applications*
  Spring 2021 ◇ Department of Computer Science, Aarhus University

- » *Mathematical Analysis 2*
  Spring 2020 ◇ Department of Mathematics, Aarhus University

- » *Mathematical Analysis 1*
  Autumn 2019 ◇ Department of Mathematics, Aarhus University

- » *Calculus Beta*
  Autumn 2018 ◇ Department of Mathematics, Aarhus University

👥 Volunteering

[**Musicology Students' Choir**](#) » **Treasurer**

2019–2023 ◇ Aarhus, Denmark

Board member and treasurer for the Musicology Students' Choir at Aarhus University. Overseen the financial and legal responsibilities of the choir. Implemented major changes to the articles of the association to ensure fairness and transparency.

</> Technical and computer skills

- » Software development in **Java**. Test-driven development, compositional design, and design patterns.
- » Computer architecture. Programming in **C** and **x86 assembly**. Basic knowledge of operating systems, in particular **Unix**.
- » Concurrent and distributed (network) programming in **C**, **Java** and **Go**.
- » Scientific and statistical programming in **Python** and **R**.
- » Functional programming in **Haskell**, **Scala**, **F#** and **Racket**.
- » Theoretical computer science: Algorithms and data structures, programming language theory, computability and logic.
- » Experience with database systems and data modelling, in particular relational databases and **SQL**, concurrency control and recovery. Basic knowledge of data mining.

For more details see my GitHub page and a complete list of university coursework.

🗺 Language skills

Danish	Native proficiency
English	Full professional proficiency
German	Limited working proficiency

🎵 Hobbies and interests

Outside of mathematics and computer science, music is my favourite pastime. I play the piano and guitar, and I sing in the Musicology Students' Choir at Aarhus University.

I also enjoy a game of chess, going for a run in the forest or reading a good book (I'm currently reading Robertson Davies' *Fifth Business*).