







ISSA HANOU, MSC

PhD candidate Algorithmics

 i.k.hanou@tudelft.nl
 [issahanou](#)

 [issahanou.github.io](https://github.com/issahanou)
 [IssaHanou](#)

 [issa-hanou](#)
 0000-0001-5873-5139


 [IssaHanou](#)

ABOUT ME

As a PhD candidate, I am very excited to learn more, contribute to the research community, and develop myself further. I have always enjoyed problem-solving, which is what drove me towards Algorithmics. With a passion for sustainability, I want to put my drive and perseverance towards a more sustainable world.

WORK EXPERIENCE


PhD candidate | [Delft University of Technology](#)

 Sep 2022 – Aug 2026

 Delft, The Netherlands

- My research is part of the ICAI RAIL Lab, which is a joint project between Delft University, Utrecht University, ProRail, and NS on developing AI for better train planning
- My research specifically looks at learning from previous situations to produce recognizable plans for human operators


Graduate Intern | [NS R&D Logistics](#)

 Nov 2021 – Jul 2022

 Utrecht, The Netherlands

- Studying the feasibility of the Train Unit Shunting Problem with insights from the Pebble Motion problem
- Complexity study on different variants of the problem


Coach Online Introduction Computer Science and Engineering | [Delft University of Technology](#)

 Sep 2019 – May 2022

 Delft, The Netherlands

- Answered questions of prospective students and managed the online introductory course
- Helping students who do not have any preliminary knowledge is a challenging and rewarding task

Student Assistant | [Delft University of Technology](#)

 Sep 2017 – Jun 2022

 Delft, The Netherlands

- Assisted on several bachelor courses, mostly within the Algorithmics and Software departments
- Helping students in their first programming (Java or Python) course drove me to find new ways of explaining
- Assisting in the third-year bachelor courses (NP-hard problems and Complexity theory) gave me more insight into the topics


Undergraduate Intern & Junior Developer | [Raccoon Serious Games](#)

 Nov 2019 – Apr 2020

 Delft, The Netherlands

- Developed a system for designing and managing physical escape rooms, worked in Python, TypeScript, and Go
- Worked together in our team of three students to integrate the system within the company and set up two escape rooms using our system


Junior Developer | [Tektonikos](#)

 Aug 2019 – Nov 2019

 Haarlem, The Netherlands

- I worked on a temporary contract in a gap period of my studies to gather experience in the work environment
- Research and Development for best development strategies for clients' problems and bug fixes of client's websites

Tutor | [Self-employed](#)

 Sep 2015 – Jun 2016

 Haarlem, The Netherlands

- Throughout the year, I helped ten high school students of different education levels and ages with a variety of courses
- General homework assistance for a student in VMBO-B, challenging me to explain the basic concepts of mathematics
- Helped several students in their exam years with their Mathematics (VWO and HAVO) and Chemistry (HAVO)

EDUCATION

Practicum Musicae - Classical Accordion | [Royal Conservatory](#)

📅 Sep 2020 – Jun 2023

📍 The Hague, The Netherlands

- Three-year part-time minor education that allows me to combine my studies in Delft with a musical education
- With efficient time management, I have been able to keep up my studies in Delft besides my Conservatory studies
- My musical development has helped me build discipline and motivate myself towards my goals

MSc Computer Science | [Delft University of Technology](#)

📅 Feb 2020 – Jul 2022

📍 Delft, The Netherlands

- Software Technology track, focus on Algorithmics, including the courses Advanced Algorithms, Algorithms for Intelligent Decision-Making, Evolutionary Algorithms, Distributed Algorithms, Advanced Discrete Optimization
- Electives: Planning and Operations for Public Transportation Systems; Transport, Routing & Scheduling
- Thesis on formalizing a relaxation of the Train Unit Shunting Problem as an extension of Pebble Motion

BSc Computer Science & Engineering | [TU Delft](#)

📅 Sep 2016 – Jan 2020

📍 Delft, The Netherlands

- Courses included Reasoning & Logic, Algorithm Design, Complexity Theory. Minor in Safety, Security and Justice
- For my bachelor's thesis, we designed an escape room Internet of Things for controlling the room

Bilingual VWO High School | [Het Schoter](#)

📅 Sep 2010 – Jul 2016

📍 Haarlem, The Netherlands

EXTRACURRICULARS

Board Member | [Haarlem Accordion Orchestra](#)

📅 Jan 2021 – Apr, 2024

📍 Haarlem, The Netherlands

- Taking initiative to organize national and international concerts
- Coordinating rehearsals, managing the association and maintaining the [website](#)

Local Organization | [BNAIC/BeNeLearn Conference](#)

📅 Nov, 2023

📍 Delft, The Netherlands

- As part of the local organization committee, I helped organize the 2023 edition of the Benelux Conference on AI.
- I was mainly involved in the hotel coordination, looking for dinner locations, managing volunteers, and on-site help

Committee Member | [Delftsche Studentenbond](#)

📍 Delft, The Netherlands

📅 Feb 2020 – Aug 2020 Chair Introduction Week Committee

Led a committee of six members to keep the organization on track and organized a 10-day event for new students in Delft, with a fully online program

📅 Jun 2019 – Nov 2021 Member Treasury Committee

Checked quarterly finances for the association and assisted committees in creating budgets and settlements

HOBBIES

2015-now: Member Haarlem Accordion Orchestra, first chair

2019-2023: Member Dutch Symphonic Accordion Orchestra

2021-2023: Member Blue Birds First Softball Team

2022: Third prize annual Accordion Concours for duo

2018: First prize annual Accordion Concours for solo

2018: Volunteer Haarlemse Honkbalweek

2014: Member of National Dutch Softball Team U16 (Jong Oranje)

LANGUAGES

Dutch: [Native](#)

English: [Native](#)

Spanish: [Intermediate](#)

CERTIFICATES

2015: Driver's license, Dutch type B

2014: Cambridge Advanced English

PROJECTS

Built Orchestra website [🔗](#)

Built and still maintain the website of our orchestra.

Built financial website

📅 Feb 2017 - Oct 2019

To manage the finances of our 'verticale' at the student association, we build a Java Play website in a team of five.

High School Exchange | [Central High School](#)

📅 Feb 2016 📍 St. Paul, MN, USA

As part of my IB program, I organized my own trip to the USA and fundraising activities to pay for my trip. During my exchange, I attended the High School for two weeks and researched the differences between American and Dutch high schools.