



PERSONAL DATA

- Dieuwertje Maria Elisabeth de Beer
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LANGUAGES

Dutch
English

PROGRAMMING LANGUAGES

Python
Micropython
Java
R (Tidyverse, Shiny)
Arduino/C++
Mathematica
SQL

SKILLS

LaTeX
Canva

DIEUWERTJE DE BEER

She/Her

EDUCATION

UNIVERSITY COLLEGE ROOSEVELT

2022 -2025

Bachelor of Science (honors), with a minor in Electrical Engineering

Relevant subjects

Data Science:

- Introduction to Data Science
- Machine Learning
- Robotics

Computer Science:

- Introduction to Programming
- Artificial Intelligence
- Topics in Computer Science (Algorithms)

Physics:

- Introduction to Physics
- Quantum Mechanics
- Advanced Physics
- Electromagnetism
- Particle Physics

ERASMUS COLLEGE ZOETERMEER

2016-2022

VWO certificate in Physics & Engineering / Biology & health

CERTIFICATES

IELTS, International English Language Test System (achieved in 2022)

RELEVANT ACADEMIC EXPERIENCES

SENIOR PROJECT - ROBOTICS

“Design and Implementation of an Autonomous Robot; Incorporating ESP-NOW Communication and Ultra-Wideband Radiolocation”

OTHER WORK EXPERIENCES

Student Ambassador at UCR
(2024-2025)

Allround Employee at Hotel de Nieuwe Doelen (2023)

Waitress at Brasserie 1640
(2022)

Manager Digital Archive at Peutz (2020-2021)

Trainster at Mixed Hockey Club Zoetermeer (2018-2020)

HOBBIES

Crochet & knitting
Sewing clothes
Reading
Painting
Working out

During my senior project, I designed and built an autonomous robot capable of determining its position within a building using Ultra-Wideband (UWB) radiolocation. In addition, I implemented ESP-NOW communication, enabling the robot to efficiently exchange data wirelessly with other microcontrollers or robots.

INTERNSHIP - DATA SCIENCE

In the final year of my bachelor's degree, I completed an internship in which I developed a web application using R Shiny. This app automatically checks whether students meet all the requirements to graduate from University College Roosevelt (UCR).

FINAL PROJECT - MACHINE LEARNING

For the Machine Learning course, I completed a final project in which I applied various machine learning models in Python to the CERN Subatomic Particles Dataset. The goal was to classify which particle was detected in a detector, with a focus on distinguishing between the Upsilon and J/psi particles, which have very similar masses.

FINAL PROJECT - ARTIFICIAL INTELLIGENCE

For the Artificial Intelligence course, I recreated the game Flappy Bird in Python using Pygame. I then developed three different AI agents that were able to play the game using simple heuristics.

DATAFEST - FIRST PLACE

As part of a team of six, I participated in Zeeland Datafest, a 14-hour hackathon focused on solving societal challenges through data analysis. With transportation as the main theme, we analyzed several provided datasets and developed a solution that earned us first place.