



**Madalina Carcea**

## CONTACT

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## ABOUT ME

Aspiring Data Scientist & AI Engineer with practical experience in AI automation, data analytics, and technical documentation. Passionate about building impactful tools using computer vision, machine learning, and Python-based systems. Fast learner, clear communicator, and highly detail-oriented.

## WORK EXPERIENCE

**08/10/2024 – 30/11/2024** Rotterdam, Netherlands

### Artificial Intelligence Engineer DeRegt Cables

Documented and analysed AI-driven automation projects to improve cable design, measurement, and modelling processes. Key contributions included:

- **AI for Cable Optimisation** – Reported on a system using large datasets (Excel, Lotus, PDFs) to optimise layered cable designs for cost and efficiency.
- **Automated Spiral Measurement** – Documented a computer vision and deep learning approach for measuring spiralled metal components.
- **Blender-Based Design Automation** – Created documentation for a Python-Blender tool enabling parametric 3D cable modelling via Excel input.

Gained hands-on experience with fibre and electric cable systems while refining my technical writing skills and translating complex AI solutions into clear reports for diverse stakeholders.

**Business or Sector** Manufacturing | **Department** Cable design | **Website** <https://www.deregtcables.com/>

**29/01/2024 – 09/02/2024** Bergen Op Zoom, Netherlands

### Internship DKG Groep

As a Breda University's Data Science and Artificial Intelligence Academy student, I was fortunate enough to secure a two-week internship with one of the university's new partners, DKG. As part of the internship, my team of four data scientists and I were tasked with maximising profits, minimising losses, and calculating the accuracy of production planning. We worked together to turn our ideas into reality and successfully achieve our goals.

**Business or Sector** Manufacturing | **Department** Planning Department | **Website** <https://www.dkgkeukens.nl>

**Link** <https://github.com/MadalinaCarcea221989/Personal-Projects/tree/main/DKG>

## EDUCATION AND TRAINING

**31/08/2023 – CURRENT** Breda, Netherlands

### Data Science and Artificial Intelligence- Bachelor of Sciences Breda University of Applied Sciences

**Website** <https://www.buas.nl/en>

**05/09/2022 – 14/07/2023** Breda, Netherlands

### Creative Media and Game Technology- Bachelor of Sciences Breda University of Applied Sciences

**Address** Monseigneur Hopmansstraat 2, 4817 JS, Breda, Netherlands | **Website** <https://www.buas.nl/en>

**10/09/2018 – 27/05/2022** Iasi, Romania

### High school diploma "Alexandru Ioan Cuza" High school Iasi

**Address** St.Ion Creangă, no.37, 700317, Iasi, Romania | **Website** <https://www.alicuzaiasi.ro>

20/09/2020 – 23/04/2021 Iasi, Romania

## Certificate in Software Testing, Manual and Automated Wantsome - The Friendly IT Academy

During those seven months of course I managed to gain knowledge in manual testing and automation testing, specifically , Java through IntelliJ , GitHub, Jira and others programs such Selenium. Also I learned about testing models , types of testing , Databases and Unix commands ,however we studied Specification analysis and environmental preparation.

**Address** St.Colonel Langa, no. 17, 700065, Iasi, Romania | **Website** <https://wantsome.ro> | **Field of study** Software and applications development and analysis

## LANGUAGE SKILLS

**MOTHER TONGUE(S):** Romanian

**Other language(s):**

**English**

**Listening** C1

**Spoken production** C1

**Reading** C1

**Spoken interaction** C1

**Writing** C1

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**German**

**Listening** A2

**Spoken production** A2

**Reading** A2

**Spoken interaction** A1

**Writing** A2

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**French**

**Listening** A1

**Spoken production** A1

**Reading** A1

**Spoken interaction** A1

**Writing** A1

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*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## SKILLS

### DATA SCIENCE AND ARTIFICIAL INTELLIGENCE

Data Science | Data Collection, Data Processing, Data Analysis, Data Visualisation | Power Query ,Power BI | Python (computer programming) | Machine Learning | Computer Vision | Natural Language Processing | Python (PyROOT, RDataFrame; ML: Keras, TensorFlow) | Feature Engineering | Critical Thinking | Robotics Tools: ROS, OpenCV, PyGlet, PyBullet, PyChrono, OpenAI Gym, Docker | R

### PROGRAMMING

Python | C++ | C | MySQL | Java | Software Engineering | Good command of Arduino | Object-Oriented Programming | PHP | C/C++(Arduino, Raspberry, Makerboard)

### GENERAL KNOWLEDGE

Microsoft Office | Windows | Unreal Engine | Technical & Non-Technical Writing | Excellent knowledge in the use of Windows, MacOS, Android, iOS, Linux platforms

### EDITING SOFTWARES

Adobe Premiere | Adobe Photoshop | Adobe Lightroom | Adobe Illustrator | Adobe InDesign

## SOFTWARE TESTING

Software tester | Agile (Scrum) | API Integrations | Unit Testing | Integration Testing | Jira | Selenium Testing | Selenium Web Driver | Slack | Design Patterns | Postman