

# ROMINA CARABA-THAMPI, MSc.

## Machine Learning Engineer

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Proficiencies: Python (TensorFlow, keras, matplotlib, pandas), Jupyter, R, SQL, Matlab, Tableau, Microsoft Office, LaTeX, AWS, git, bash, Linux, Javascript

**Enthusiastic Machine Learning Engineer with 4 years of experience with Python. Clear understanding of machine learning models and TensorFlow. Motivated to learn, grow and excel in the tech industry.**

## WORK EXPERIENCE

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### Machine Learning Engineer

NOVACENE AI

Mar 2020 – present

Remote

- Implemented and evaluated artificial intelligence and machine learning algorithm for the private sector.
- Analysed the Canadian COVID-19 data and built a predictive model for total number of cases in June.

### Robotics and Mathematics Teacher

Crania Schools

Sep 2019 – March 2020

Waterloo

- Taught students how to understand and solve K-12 math problems. Documented and communicated student progress on course goals to identify areas of improvement.

### Code Mentor and Technical Translator

Codeberry

Feb - Jul 2019

Remote

- Monitored and managed student progress to identify areas of improvement for HTML, CSS and Javascript. Collaborated in remote teams to support student education by reviewing translation of technical terms to Romanian.

## EDUCATION

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### Brainstation

Data Science Diploma

Jun - Sep 2019

Toronto

- **Capstone Project:** Automated cancer detection from images of lymph node sections. Built a Convolutional Neural Network (CNN) using Python's TensorFlow library.

### BIOTEC Technical University of Dresden

Master of Science in Nanobiophysics

2016 - 2018

Dresden, Germany

- **Graduate Research Thesis:** Consolidated team's belief that interaction fingerprints provide more accurate results in the drug research industry. Used SQL, Python's pandas and numpy, and R to create interactive Principal Component Analysis (PCA) maps.
- **Teaching Assistant for Applied Bioinformatics:** Instructed students on using Python in Bioinformatics. Re-designed assignments to bolster students' understanding of tricky Bioinformatics concepts.

### West University of Timisoara

Bachelor of Science in Nanobiophysics

2012 - 2015

Timisoara, Romania

- **Undergraduate Research Thesis:** Implemented the heat equation in Mathcad to simulate the radiation effect on various organs in the human body.
- **Teaching Assistant for Introduction to C Programming:** Conducted a laboratory section with coding in C for Physics Major.
- **Undergraduate Research Assistant:** Developed a numerical simulation of crystal growth in space under zero-gravity conditions using CrysVUn software.

## PROJECTS

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- **[Covid-19 Canada Prediction](#):** Analyzed Canadian COVID-19 case data and built a predictive model in Python to predict possible numbers of active cases for the month of June.
- **[Space App Challenge Waterloo](#):** Analyzed the data from the CSA Space App Challenge regarding Neutron radiation on the International Space Station and across Canada.
- **[Automating Cancer Detection](#):** Machine Learning project for automating detection of cancerous tissue from lymph nodes sections. Open data from Patch Camelyon Challenge.
- **[Toronto Crime Analysis](#):** Exploratory Data Analysis of crimes in GTA from 2014 - 2018. Contains data cleaning and analysis of trends over time.
- **[Open Source Contribution](#):** Translating the Ubuntu package dock. Translating the Romanian Locale for Ubuntu Women. Translating Legesher Ubuntu package to Romanian.