

Bogdan Floriş

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education

- M.Sc.** Artificial Intelligence, University of Amsterdam, Netherlands 2018–2020
Selected Coursework: Machine Learning, NLP, Reinforcement Learning, Evolutionary Computing
- B.Sc.** Computer Science, Eindhoven University of Technology (TU/e), Netherlands 2015–2018
Selected Coursework: Algorithms, Data Structures, Probability & Statistics, Programming Methods and Design Patterns, Linear Algebra 1 & 2, Operating Systems, Computer Networks & Security

skills

- Data science** Machine learning, Boosting, NLP, Predictive Modelling, Deep Learning, Feature Engineering, Monte Carlo Methods, Information Retrieval
- Programming** Python (including Numpy, Scipy, Pandas, Scikit-learn, Matplotlib, Seaborn, Pytorch), Java, Golang, C++, Bash, OOP, Design Patterns, LaTeX
- Databases** SQL, PostgreSQL
- Web stack** Python with Django framework, HTML, CSS, Javascript, ReactJS
- Languages** Romanian (native), English (fluent)

experience

Bachelor Final Project

- Eindhoven University of Technology Apr. 2018–Jul. 2018
- Built a web application for a company called Zorgdoc, together with 9 other students, as part of the Bachelor Final Project.
 - We built a web banking application, based on the design pattern called Event Sourcing.
 - The application was built using the Python framework Django, used PostgreSQL as a database, and Vue.js for the frontend.
 - My responsibilities included: building the database schema and implementing the event queueing mechanism, which handled HTTP requests coming to the server and made sure that the events were all handled properly and stored in the database in the right order.
 - I also worked on part of the REST API and made sure that everyone complied with the database schema.

Data Analytics Tutor

- Eindhoven University of Technology Nov. 2017–Apr. 2018
- Tutoring a group of 30 students twice a week on Python libraries like Numpy, Pandas, and Matplotlib, helping them tackle their practical assignments.
 - Grading the students' two programming assignments and their analysis and visualizations on an IMDB movie dataset.

projects

Function Optimizer

- Evolutionary Computing Project Sep. 2018–Oct. 2018
- Built an evolutionary algorithm and wrote a short paper, together with 3 fellow students.
 - The function optimizer algorithm was built in Java and used a lot of different methods for crossover, mutation and population management.
 - The paper was concerned with research on different topologies of the Island Model (a method that maintains diversity in the population).

Rectangle Packing

- Algorithms Project Apr. 2017–Jul. 2017
- Built a desktop application that takes as input 5, 10, 25, or 1000 rectangles and packs them in the rectangle of minimum area, as part of a group project.
 - The problem is NP-Hard, so multiple algorithms of different time complexities had to be built. Low number of rectangles was handled by a slow, but optimal algorithm and large number of inputs was handled by a binary packer.
 - I was in charge of implementing the binary packer. The algorithm is based on binary trees, runs in $O(n \log(n))$ time and handles a large number of rectangles quite well.

Daily Organizer

- Web Application Nov. 2016–Feb. 2017
- Created a web application in Python using the Django framework: Daily Organizer
 - The application tracks expenses, bills and also has a todo list.