

# Thomas Diaconu

Software Engineer

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## Education

- 2019 - 2021 **EURECOM**, *MSc Data Science and Engineering*, Nice (France), GPA: 3.6/4.  
Machine Learning, Deep Learning, Software Development, Optimization, Statistics
- 2018 - 2021 **IMT Atlantique**, *MSc in Engineering*, Brest (France).  
Probabilities/statistics, Graph theory, OOP in Java, SQL, Programming, Economics, Projects
- 2014 - 2018 **Preparatory classes for selective schools**, *Lycée Marcelin Berthelot*, Paris (France).  
High level Mathematics, Physics, Computing & Chemistry

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## Skills

- Programming Python, TypeScript, JavaScript, HTML/CSS, Angular, Java, SQL, Git, Docker
- Languages French (native), English (fluent, IELTS: 7), Romanian (bilingual), German (intermediate)

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## Experience

- Jan. 2023 - Now **Software Engineer**, *Amazon Web Services*, Paris (France).  
Involved as a Full Stack Engineer on AWS Mainframe modernization.
- Sept. 2021 - Dec. 2022 **AI Software Engineer**, *Paprec*, Paris (France).
  - Led the development of the new internal payroll software using Angular & Go
  - Developed a calculation engine using Python to automate the computations of employees wages
  - Built a tool for image annotation & waste prediction (Angular & Python Flask)
  - Leveraged Docker server-side to containerize Frontend and Backend to allow for easy deployment and scalability
- Feb. - Aug. 2021 **R&D Engineer Intern**, *Sopra Banking Software*, Paris (France).  
Worked in the innovation department as part of my master thesis (grade: 17/20).
  - Built a dataset and implemented several Machine Learning models for investment advice & profiling
  - Built, extended and optimized REST API endpoints for an online banking
  - Set up a HTTPS reverse proxy in a Linux containerized environment with NGINX, Docker and AWS
- 2019 & 2020 **Freelance Software Engineer**, *Paprec*, Paris (France).  
Worked as a freelance software developer in parallel with my studies.
  - Involved as the main frontend developer of two web applications in production using Angular
  - Created and led projects presentations to the General Management
- Feb. - March 2019 **Artificial Intelligence 1-month discovery Intern**, *Microsoft*, Paris (France).  
Completed edX DAT263x (Introduction to AI) & used Azure Cloud to discover various AI tools

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## Projects

- Winter 2020 **Waste detection | Computer Vision, Python, Tensorflow.**  
Detection and classification of diverse type of waste as part of my semester project. Grade: 20/20
  - Developed a piece of code to test a pre-trained neural network (provided in checkpoints files), and evaluated its performances with classical metrics: 0.8 precision, 0.4 recall, 0.5 F1-score
  - Built and cleaned a large dataset of  $\sim 4k$  pictures and implemented YOLO model (based on the official research paper)
- Winter 2020 **Text classifier | NLP, Python, Scikit-Learn, Jupyter Notebook.**
  - Explored various NLP tools & text preprocessing methods
  - Compared several supervised models and picked the best one: obtained an accuracy  $> 95\%$
- Winter 2019 **Check the place | Angular, TypeScript, JavaScript, HTML/CSS, Git.**
  - Built an Angular web application for students where they can share places they visited
  - Designed & implemented about 10 screens. Deployment on Azure Cloud for the presentation
- Spring 2018 **Propagation of mechanical waves in muscles | Python, LabView, Physics concepts.**
  - Participated in the development of a software capable of analyzing the signal generated by the wave
  - Measured the celerity of the wave ( $\sim 1\text{ ms}^{-1}$ ) & physically modelled the arm by a Melde rope

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## Interests

- Hobbies Programming (hackathons), Video games, Chess
- Sport Tennis, Golf, Cycling