

# Vincent Lalanne

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## PROFILE

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Master's student in microelectronics and computer science at Mines de Saint-Etienne, studied the final year at The University of Auckland. Particular interest in data science, Microsoft AI-900 certification in progress. Fast learner with valuable communication and teamwork skills.

## EDUCATION

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- 2023 – 2024     [The University of Auckland | Waipapa Taumata Rau - top 100 universities worldwide](#)  
Auckland,  
New Zealand
  - Year of immersion and study in computer science and software engineering
  - Relevant courses: Machine Learning | cybersecurity | C# .NET | Java | software architecture | object-oriented development | critical management | database systems
- 2021 – 2025     [École Nationale Supérieure des Mines de Saint-Etienne - top 10 engineering schools in France](#)  
Gardanne,  
France
  - Master of Engineering specialised in Computer Science and Microelectronics
  - Relevant courses: Machine/Deep Learning | C/C++ | pentesting | analog/digital electronics | management | signal processing | assembly and robotics | VHDL | UML
- 2019 – 2021     [Lycée Marie Curie, Classes préparatoires](#)  
Nogent,  
France
  - Two-year intensive program focusing on advanced Physics, Mathematics, and Engineering

## EXPERIENCE & PROJECTS

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- 2024     [MACHINE LEARNING](#), manual coding of classifiers for text comparison and data classification  
Auckland,  
New Zealand
  - Coded from scratch a binary decision tree to classify samples from the Mushroom dataset. Achieved 100% accuracy in 5 splits and compared performance with different splitting criteria
  - Created from scratch a Naïve Bayes classifier for text classification of abstracts of scientific articles. Achieved 97% accuracy using preprocessing methods (SMOTE and noise words removal) and in-code optimisation
  - Led in-depth hyperparameter optimisation and comparison of NB, SVM, KNN and NN for text classification with a dataset of BBC articles. Found results corroborating the knowledge in the field with a best accuracy of 100%
- 2024     [WEB DEVELOPMENT](#), full-stack coding of an online store  
Auckland,  
New Zealand
  - Created back-end system in C# using the .NET framework, including an authentication system using a prebuilt method in .NET
  - Coded front-end with HTML, CSS and JavaScript for desktop and mobile platforms
  - Implemented and consumed several RESTful APIs to interactively display and interact with elements from a database

- 2023 **INDUSTRIAL PROJECT**, automation of passive attack scripts on embedded systems
- Gardanne, France
- o Led a team of eight students in the development of an innovative web application for a French tech start-up
  - o Developed a database-driven Flask web application (HTML, CSS, JavaScript, Python)
  - o Used network sniffing and packet analysis scripts (Python/Bash)
  - o Created a secure Raspberry PI/computer SSH communication
- Jan. 2023 **PROTOTYPING PROJECT**, design of a capacitive load cell
- Gardanne, France
- o Worked in pairs on a force transducer operating by elastic deformation of a polymer
  - o Obtained a linear sensor with high sensitivity and low error as measured on the 3D printed prototype, by modelling on Comsol Multiphysics and using the Euler-Bernoulli beam theory
- Jan. 2022 **ENCAPSULIX**, process equipment for large scale nano-technology Atomic Layer Deposition
- Simiane, France
- o Joined a small team in a high-tech field as an intern
  - o Carried out a complete stock analysis and valuation operation
  - o Conducted verification of electronic and digital machine operation
  - o Performed nano-scale precision measurements with ellipsometer and spectrophotometer

## OTHER EXPERIENCE

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- 2021 – 2024 **Student clubs and associations**
- o **Junior Mines Provence, project manager** at my university's Junior-Enterprise
    - o Managed technical projects to ensure respectful customer/student communication
    - o Approached prospects and led negotiations to ensure the financial stability of the structure
  - o **ISMIN Business Forum, event manager**
    - o Helped with the organisation of the school's yearly expo, bringing together students and recruiters
  - o **Commission Foyer, general secretary** | student bar manager
    - o Strengthened relations with the university by setting up a system of quotes for events
    - o Facilitated the administrative process by drafting professional and adaptable templates
    - o Managed a team of bartenders and ensured high quality service for customers
- 2022 – 2023 **Part-time jobs**
- o **Private teacher** in Mathematics, Physics, Engineering, French, and English from year 6 to Master students
  - o Management agent at the **Mines-Telecom Institute**, French public academic institution dedicated to Higher Education and Research for Innovation
  - o Helped sell local fruits and vegetables at my city's farmer market
  - o **Bartender** for various prestigious events in the city of Auckland

## SKILLS

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IT Languages Python | C | C++ | C# | .NET | Flask | HTML | CSS | JavaScript | SQL | Java | OOP | JSON  
 French (native) | English (fluent, IELTS C1) | Japanese (fluent speaking) | Spanish