Luca Ferrari

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Data Science and Computer Engineering student with proven ability to combine vision, technical knowledge and data-savviness through multiple projects and academic education.

Skills and areas of expertise

Programming languages	Big Data	Cloud Computing	System Administration	Web Development	Data Science / ML	Other
• Python • Java • C • SQL • MATLAB	• Hadoop • Hive • Spark • PySpark	• AWS • GCP • OpenStack • Azure	• Linux • Ubuntu • CentOS • Nginx • Apache	• HTML • CSS • JavaScript • PHP • JSP • MySQL	• NumPy • Pandas • SciKit Learn • MongoDB • TensorFlow • Matplotlib • SeaBorn	• Project Management • Git • Wireshark • Jupyter • Adobe Suite • Office package

Projects

For extra projects and further information: https://ferrariluca.net/projects

- **backCor (Raman spectra pre-processing tool)**
  Code: *https://github.com/frittatelle/backCor*
  Download: *https://ferrariluca.net/docs/backCor Installer.exe*
  Python, Python OOP, Tkinter, NumPy, Matplotlib, PyInstaller, Project Management

  backCor is a Raman spectra pre-processing software I developed in collaboration with the Nanomedicine and Molecular Imaging lab of IRCCS ICS Maugeri and the CCPS lab of the University of Pavia.
  After being processed Raman spectra data is used to classify mammal microcalcification and therefore to detect breast tumor.

  - Software design
  - Software development

- **COVID-19 Hackathon**
  Analysis: *https://ferrariluca.net/docs/hackathon*
  Hackathon rules: *http://antoninonocera.unipv.it/2020/04/01/dsbda-2020-hackathon-covid19/*
  Python, Numpy, Pandas, SciKit-Learn, Matplotlib, Seaborn

  The objective of the project/hackathon was to investigate COVID-19 data providing meaningful insights and trends. In my analysis I tried to assess the effectiveness of the Italian Governement containement measures. The analysis was positively evaluated by the jury and got me the 2nd place in the COVID-19 Hackathon by University of Pavia.

  - Data sources research
  - Data exploration

    - Data pre-processing
    - Hypothesis formulation
    - Hypothesis testing and verification
    - Results presentation

- **Complex Networks analysis**

  Analysis: *https://ferrariluca.net/docs/edi.pdf*
  Nginx, AWS, HTTP/2, Ubuntu Server, Proxy Servers, Apache, CentOS, DDoS

  Server architectures / technologies performance and robustness testing.

    - Servers setup on AWS
    - Ubuntu / CentOS setup
    - HTTP/2 setup
    - Reverse proxy setup
    - Performance testing
    - Robustness testing (DDoS attack simulation)

- **ferrariluca.net**

  AWS, Ubuntu Server, Nginx, HTML, CSS, JavaScript, PHP, MySQL, Project Management, Adobe Suite

  Personal website development and setup.

    - Website design
    - Website development
    - Server setup on AWS
    - Website deployment

Education

- **Master's degree, Computer Engineering, Data Science**

  Università degli Studi di Pavia, Italy
  2019 - 2021
- **Bachelor's degree, Bioingegneria e ingegneria biomedica**

  Università degli Studi di Pavia, Italy
  2016 - 2019
- **Maturità scientifica**

  Liceo Scientifico T.Taramelli, Pavia, Italy
  2011 - 2016

Languages

- **Italian**, Mother tongue
- **English**, Fluent
- **French**, Basic
- **Swedish**, Beginner