



Letizia D'Achille

CONTACTS

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SKILLS

PROGRAMMING

Proficient:

C • C++ • Matlab • CoCoA

Basic:

Python • PHP • Javascript • OCaml • MySQL

MARKUP

LaTeX • HTML (Basic)

LANGUAGES

Italian (Mother tongue) •
English (B2 Level) • French (Basic)

OTHER SKILLS

- Proficient in Microsoft Word, Excel and Powerpoint
- Proficient in both Microsoft Windows and macOS environments
- Competent in Linux environment

COURSEWORK

UNDERGRADUATE

- Algorithms and Data Structures
- Computational Lab
- Scientific Computing
- Programming languages with laboratory
- Elements of set theory
- Numerical Methods for ODEs
- Probability
- Scientific English

ACADEMIC INTERESTS

Computational algebra • Programming •
Cryptography • Number theory •
Numerical analysis

EDUCATION

BACHELOR DEGREE IN MATHEMATICS

| COMPUTATIONAL CURRICULUM

UNIVERSITY OF PISA

Aug 2018 - May 2022 | Pisa, Italy

Graduation mark: 110 / 110 Cum Laude • a.y. 2020/21

Weighted average: 28.76 / 30

LICEO SCIENTIFICO

| OPZIONE SCIENZE APPLICATE

LICEO SCIENTIFICO "P. RUFFINI"

Sep 2013 - Jul 2018 | Viterbo, Italy

Graduation mark: 100 / 100 Cum Laude

BACHELOR'S THESIS

ALGEBRA LINEARE SU MODULI E ALGORITMO DI BUCHBERGER

LINEAR ALGEBRA ON MODULES AND BUCHBERGER'S ALGORITHM

Supervisor: Professor Massimo Caboara

Description:

Analyzing the computation of the normal form of a module via Buchberger's algorithm, we compare this procedure with the Gauss and Euclidean algorithms, and we study it as a tool for computing operations between modules. We provide a unified treatment of the theory, in which systematic comparisons have been developed from considerations that are not generally formalized in literature. The work is supported by examples developed using CoCoA.

🔗 [Link to thesis](#)

EXTRACURRICULARS

PHC | SYSTEMS ADMINISTRATOR

University of Pisa • Department of Mathematics

Dec 2018 - May 2022 | Pisa, Italy

- Member of a group of technicians that maintains a network of Linux computers and offers various services for mathematics students
- Maintenance of the web server poisson.phc.dm.unipi.it

OLIMPIADI ITALIANE DELLA MATEMATICA

2014 - 2018

Participation in several editions, both in individual and team competitions

GCMUN | DELEGATE

Feb 2018 | New York, NY

International Model UN conference

SUMMER SCHOOL MATH&MORE

Convitto Nazionale "Principe di Napoli"

Sep 2016 | Assisi, Italy

- Summer camp for development of excellence in mathematics
- One of two students selected to attend the school

CERTIFICATIONS

FCE | CAMBRIDGE ENGLISH

Jun 2017

Grade: 179/190

1ST TERM SOLFEGGIO

ISTITUTO SUPERIORE "G. BRICCIARDI"

Jul 2013 | Terni, Italy

Reading, Theory, Dictation, Ear Training




OTHER INTERESTS

Computers • Video games •
Board games • Trekking • Piano •
Travelling

PROJECTS

UNDERGRADUATE WORK

UNIVERSITY OF PISA

- Algorithms and Data Structures -  Urban route planner (C++)
- Computational Lab -  Burrows-Wheeler transform of finite automata (C++)
- Scientific Computing -  Arnoldi-PET algorithm for PageRank (Matlab)

AWARDS

2018 **INDAM** scholarship for enrollment in courses of study in Mathematics

EXPERIENCE

SPORTELLLO AMICO | TUTORING

Liceo Scientifico "P. Ruffini"

2015 - 2018 | Viterbo, Italy

Tutoring for students of secondary school