

Alvaro Diez

Curriculum Vitae

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📄 github.com/AlGepe

Pre - University Studies

2008-2010 **Bachillerato Español**, *Instituto Santa Clara*, Santander, *High School Studies*.

- Final grade: 8.1/10 Including selectividad¹

2008-2010 **International Baccalaureate**, *Instituto Santa Clara*, Santander, *High School Studies*.

Studied simultaneously with "Bachillerato" and completed in two years following High School's schedule

- Final grade: 31 pt
 - Including 6/7 in Physics

University Studies

2010-2017 **Degree in Physics**, *Universidad de Cantabria*, Santander, *Final Grade*.
7.45/10

Remarks:

- 2012-2013 Erasmus in Bergen (Norway)
- Bachelor's thesis:
 - Title *Fast simulation of transients in irradiated silicon detectors*
 - Supervisor Marcos Fernández García (UC-CERN)

Additional Courses

February 2017-Current **Introduction to Machine Learning**, *Udacity ud120*.

February 2017-Current **Introduction to Parallel Programming (CUDA)**, *Udacity cs344*.

Experience

Laboral

June-September (2015) **Internship at CERN**, *CERN, Geneva*, Member of the PH-DD-SSD group at CERN, Main developer of TRACS, a fast simulator for irradiated silicon detectors in C++.
Summer Student Program

National university-entry exam

February- **Internship at CERN**, *CERN, Geneva*, Member of the EP-DT-FS-Gas group at
October CERN for gas control systems, In charge of controlling gas mixtures inside selected
(2015) gaseous CERN-LHC detectors and providing technical assistance to researchers in
gas-related matters.
Technical Student Program

Vocational

- 2013–current **Founder and member of the Physics Mentor Group**, *Santander*,
The Physics Mentor Group is a group founded by students and aimed to help students in their first and second year at university.
The group has collaborated with IFCA and UC in events like "Researcher's nite" and also organized their own.

Sports

- 2007–current **Handball Referee**, *8 years of handball refereeing*
, Highest Category: National Referee (2011–2014)
, Refereed several National Championships and two Granollers' Cups (International Tournament).
- 2009–2010 **Handball coach of a kids team**.

Journalism

- 2012–2013 **Android Blog Journalist**, *El Androide Libre*.
One year work as journalist for one of the top Spanish weblogs about Android
- 2014–current **Science Blog Journalist**, *Medciencia*.
Currently working as physics journalist for the Medciencia weblog

Languages

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|---------|-------------|---|
| English | C1 Level | <i>Cambridge Certificate in Advance English obtained in May 2010</i> |
| French | Basic Level | <i>Studied french at school 2004–2008 & lived in France for 11 months</i> |

Computer skills

- Software Development **C++/C, Java, gdb, UML, Matlab, ROOT**, *Intermediate Level*, Experience developing software (mainly physics simulators and physics oriented software) in the three aforementioned languages and UML diagrams., Experience using *gdb* (and *ddd*) debugger.
Knowledge of HTML, CSS, JavaScript, Python, bash scripting, FORTRAN, AWK, SED, MySQL and Cuda.
- Operative Systems **Linux, Mac OSX, Windows**, *Intermediate–Advanced Level*,
Fluent usage of command line interface.
- Office Suites **MSOffice, LibreOffice, L^AT_EX**, *Intermediate Level*, Experience using all suites for personal work and throughout the studies.
- Text Editors **Vim, Sublime Text**, *Intermediate Level*, Great experience using *vim* and *Sublime Text 3* as text editors for software development and text processing.
Basic knowledge of GNU-Emacs, Less, Nano...

Additional Information

Driving License *Category: B*

Appendix with links to relevant information

References and Publications

Academic

- Personal GitHub (<https://github.com/AlGepe>)
- Publication at CERN Developing a fast simulator for irradiated silicon detectors (<http://cds.cern.ch/record/2057142>)
- Final talk on project at CERN: TRACS radiation upgrade v2.0(<https://indico.cern.ch/event/447412>)
- Talk at Summer Student Sessions at CERN Developing a fast simulator for irradiated silicon detectors
- Public Gas Monitoring web: Test Gas Monitoring
- Bachelor thesis:
Personal repository(tex format): <https://github.com/AlGepe/TFG>

Journalism

Articles featured in the main cover of *Meneame*.

- Graphene Supercapacitors: batteries will charge in 30 seconds and last all day
- Why does blue LED deserve a Nobel Prize in Physics and green LED doesn't?
- The story of the "invisible monster" that wrecked trains in Siberia
- How to think in 11 dimensions and not die in the process