



# Jack Halford



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🐙 <https://github.com/jzck>

in <https://linkedin.com/in/jackhalford>

## EDUCATION

**42 programming school - Paris**

**08/2016–present**



- C (C99 standard)
- Unix and POSIX standards
- using git as a team
- Shell scripting
- Rewrite of the libc library

**ENS Cachan - B.Sc. in Physics**

**09/2015–06/2016**



- Quantum mechanics
- Special relativity
- Statistical physics
- Computational physics (**fortran**)
- Optics, lasers, electromagnetism
- Mathematics : Complex analysis

**2 year preparatory course (PTSI - PT) Lycée Turgot Limoges**

**09/2013–06/2015**



- Mechanical engineering basics
- Automatic control theory, Signal processing
- Classical physics
- Mathematics (real analysis, linear algebra, probability theory)

## WORK EXPERIENCE

**IMPMC<sup>1</sup> - Paris**

**05/2016–06/2016**



- 5 week internship in a solid state physics lab
- Tight-binding modeling of rhombohedral graphene.
- Use of fortran **lapack** library to produce high performance calculations.
- Improving the understanding of the conduction properties of graphene in exotic conditions

## PROJECTS

### Shell

Leading a team of 5 students to develop a fully fledged shell built in C, including shell scripting, job control. Next to development, I am responsible for management of the team.

### Coilgun

Built a coilgun as an undergraduate project, alongside a complete simulation with **Matlab Simulink** to adjust parameters for maximum efficiency. Final version shot 50g steel bullets at 120km/h.

## SKILLS

**Very good** C, fortran

**Used daily** vim, git, tmux, Makefile

**Good** git, L<sup>A</sup>T<sub>E</sub>X<sup>2</sup>

**Prior exposure** Matlab, Django, PIC32

**Intermediate** Python, Arduino

**Systems** OS X, Linux

1. Institut de minéralogie, de physique des matériaux et de cosmochimie  
2. see CV. *beware* : recursion