



Jack Halford



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🐙 <http://github.com/jzck>

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

IMPMC¹ - 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 paramaters 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`, \LaTeX^2

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