

Basile Clément

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Education

École Normale Supérieure & Inria	Paris
PhD, CS, <i>Translation-Validation of Tensor Compilers</i>	2018–2022
École Normale Supérieure de Cachan	Cachan
Master's <i>summa cum laude</i> , Mathematics (MVA)	2015–2016
École Normale Supérieure	Paris
Master's <i>summa cum laude</i> , CS (MPRI)	2012–2014
Bachelor's <i>magna cum laude</i> , CS	2011–2012
Bachelor's, Mathematics	2011–2012

Work Experience

ENS	Paris
<i>Teaching Assistant, L3</i>	2019–2021
In Jean-Christophe Filliâtre's compilation course	
Apple France	Paris
<i>Software Engineer, Camera&Photos</i>	2017–2018
Developed models for on-device aesthetic assessment of images. As part of that work, I built internal tooling to train neural networks and convert trained models between various formats.	
Regaind	Paris
<i>Software Engineer</i>	2016–2017
Developed and integrated ML models for computer vision tasks.	
<i>Intern, supervised by Guillaume Seguin</i>	2016
Worked on image aesthetics assessment using ML.	
Apple Inc.	Cupertino
<i>Software Engineering Intern, JavaScriptCore</i>	2015
Implemented allocation sinking for cyclic object graphs, and the tail call optimization (TCO) as mandated by the ES6 specification. To this day it is the only implementation of TCO used by a major browser.	
Inria	Paris
<i>Research Intern, supervised by Francesco Zappa-Nardelli</i>	2014
Designed automated methods for the animation of Lem semantics.	
SRI International	Menlo Park
<i>Research Intern, supervised by Natarajan Shankar</i>	2013
Wrote a certified typechecker for (a subset of) the PVS proof assistant, in PVS.	

Technical Skills

Computer Science: Formal reasoning, Automated verification, Proof assistants

Technical: C++, Rust, OCaml, Python, JavaScript, git

Languages

French: Mother tongue

English: Fluent *(read, written, spoken)*

Interests

Science: Compilation & code transformation, Statistical learning, Formal methods, Computer vision

Hobbies: Tabletop role-playing, Hiking, Hacking & understanding how things works