Matteo Durante

Theoretical Mathematician

Education

2015–2018	**Bachelor in Mathematics**, *UniTo*, Turin (Italy), *110 cum Laude* Studies in Theoretical Mathematics, with a focus on Algebra
2016–2018	**Honor Student in Economics**, *Collegio Carlo Alberto*, Turin (Italy) Studies in Theoretical Economics, specifically Microeconomics and Game Theory
2018–2019	**ALGANT - Master in Mathematics**, *Leiden University*, Leiden (The Netherlands) Studies in Theoretical Mathematics, with a sole focus on algebraic branches and especially Algebraic Geometry
2019–2022?	**ALGANT - Master in Mathematics**, *Regensburg University*, Regensburg (Germany) Studies in Theoretical Mathematics, with a sole focus on algebraic branches and especially Category Theory

Master thesis

Title	*On the Internal Languages of Finitely Complete $(\infty, 1)$-Categories*
Supervisors	Hoang Kim Nguyen
Description	We reprove a result related to the Initiality Conjecture by Szumilo and Kapulkin from 2017 using the language of Higher Category Theory.

Languages

Italian	Mother language	
English	C1	*IELTS 8.0, 2017*
German	A1	*The next language I wish to learn*

Computer skills

Linux	I have been using only Arch, Void and NixOS as my main OSs for years.
Vim	Average compentence; my main text editor for years.
Haskell	Basic knowledge of the language (please check my [AoC repo](#)).
Rust	Basic knowledge of the language (please check my [GitLab repos](#)).

Scheme	Elementary knowledge of the language; learned from SICP.
Python	Basic knowledge of the language.

Interests

Mathematics	Especially Category Theory, typed foundations and anything related to Algebraic Topology and Algebraic Geometry.
Computers	I am very keen to understand how to make better use of computers and tinker with them, especially in the context of the Free Software Movement and with a minimalist approach, which led me to live in the terminal.
Rationalism	Learning how to reliably acquire ideas as close as possible to the truth and acting effectively to achieve my own objectives; in this context, I have been reading daily Astral Codex Ten, LessWrong et al.
AI	I am interested in the idea of creating a program capable of intelligent behavior across multiple domains and in AI safety.
Finance and economics	Thanks to the rationalist community I have a newfound interest in their dynamics, which pushed me to start reading Tyler Cowen, Matt Levine and Econlog.
Reading	I thoroughly enjoy rationalist fiction (i.e. HPMOR and Alexander Wales), Borges and Calvino.
Calisthenics	I have been doing bodyweight exercises for a couple of years.

Attitude

Teamworking	I coworked on a few projects related to teaching olympic mathematics and writing notes, distributing the workload among my peers.
High standards	When I do something I feel the need to do it properly, which led me to pursue an idealistic approach to mathematical research.
Punctual	When I am given a deadline I do my hardest to respect it.
Problem solver	I enjoy solving tough mathematical problems et al.
Self improver	I always strive to get better, expanding the horizon of the things I can do.

Achievements

Math Olympics	I was a member of a team which managed to arrive 12th in 2014 and 7th in 2015 at the Italian national competition
Alfaclass	In 2016 I managed to get the 2nd and 3rd placements in the individual and team competitions respectively
Bocconi's Games	I was ∼20th in my category at the national level in 2017

Publications

[1] Monads and Their Applications, 2020.

Dear Bending Spoons,

I am Matteo, 25, and I am writing this letter to express an interest in any position as a software developer, especially if it relates to cyber security or complex and scalable systems and it involves cutting edge technologies and languages, like Rust and anything else I do not know yet.

Recently I realized that what I actually want to do with my life is contributing to what allows the World to exist as we know it and progress, developing the software which everyone will use in the future without necessarily being aware of it, a task shared by Bending Spoons. I believe that doing so would help me greatly in my self-improvement journey, which would in turn better the outcomes of my future endeavours at your company, whose unique challenging environment is definitely excellent to stimulate the growth of someone such as me.

While I have been coding a little since I was 18, I never dived into the discipline until a few months ago, when I clarified my goals and decided that Academia was not the direction I wanted to go. Since then, I have been studying first Rust, then Python and now algorithms, which is giving me unexpected satisfaction. I am now eager to apply in production what I have learnt so far and see a project grow with me, which would surely be an awesome experience.

I realize that I do not yet have many skills suitable to the positions you offer, however that is an element which pushes me to work harder to get to an adequate and then excellent level of competence in anything needed. Also, my extensive knowledge of Algebra would allow me to gain a first-order understanding of cryptography in a short time.

Yours faithfully,

Matteo Durante