Stefania Damato

Curriculum Vitæ

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Education

2021 – **Ph.D. Computer Science**, *University of Nottingham*.
Under the supervision of Prof. Thorsten Altenkirch.

2019 – 2020 **M.Sc. Computer Science**, *University of Nottingham*, Distinction.
Awarded the Best Overall MSc Academic Achievement for obtaining the highest final average mark in my master's course.

Thesis Title: Constructing Simple and Mutual Inductive Types
Supervisor: Prof. Thorsten Altenkirch
We investigate the central notion of an inductive type within Martin-Löf's dependent type theory, by exploring the construction of a reduction in Agda from simple and mutual inductive types to W-types, the type of well-founded trees.

2015 – 2019 **B.Sc. (Hons) Mathematics & Computer Science**, *University of Malta*, Upper Second Class Honours.
Mathematics Dissertation Title: The Cantor–Bernstein Theorem
Supervisor: Prof. David Buhagiar
We explore various proofs of the Cantor–Bernstein theorem, which states that if there exist injections $f\colon A \to B$ and $g\colon B \to A$, then there exists a bijection $h\colon A \to B$. We also give proofs for the equivalents of the axiom of choice.

Computer Science Project Title: Algorithmic Translations from Parallel to Regular Monitors
Supervisor: Prof. Adrian Francalanza
In Adventures in Monitorability, the authors show that a parallel monitor can be transformed to a verdict-equivalent regular monitor. In this project, a partial solution is devised to carry out this transformation.

Professional Experience

2020 – 2021 **Software Developer**, *Simply VC*, Malta.
My role was focused on developing the ixo blockchain, built using the Cosmos SDK.

2019 **Research Intern**, *University of Malta*, Faculty of ICT, Malta.
Three month summer internship. Worked on the implementation of controllability of monitors under the supervision of Prof. Adrian Francalanza.

2018 **Junior Software Developer**, *Ascent Software*, Malta.
Three month summer internship. Wrote software in C++ to test low-level drivers for control units used in cars. Created Bash scripts to automate the running of these tests.

2017 **Junior Software Developer**, *Atlas Insurance*, IT Department, Malta.
Three month summer internship. Developed software in C# and wrote documentation for the AtlasSMS mobile phone messaging service, which had a Microsoft SQL Server database backend. Used SQL to connect, query and update this database.

2016 **IT Support Officer**, *Office of the Prime Minister*, Energy and Projects, Malta.
Three month summer internship in a governmental institution. Set up basic IT tasks for inventory in an office setting.

Talks and Presentations

Oct 2020 **Constructing Simple and Mutual Inductive Types**.
Finalist in Research Spotlight Competition, 14th London Hopper Colloquium, Online.

Oct 2020 **Constructing Simple and Mutual Inductive Types in Agda**.
Agda Implementors' Meeting XXXIII, Online.

Skills

My github profile is available at `github.com/stefaniatadama`.

Programming Languages.
Strong in: Agda, Haskell, Python, C, C++, Java, TEX and LATEX.
Comfortable with: SQL, HTML, MATLAB, Mathematica.
Have some experience with: Erlang, Go, VHDL.

Operating Systems.
Linux (Ubuntu), Windows.

Languages

- Maltese and English **C2** (*mother tongues*)
- Italian **C1**
- French **B1**