Stefania Damato

Curriculum Vitæ

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Education

2019 – 2020 **M.Sc. Computer Science**, *University of Nottingham*, Distinction.
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.

2013 – 2015 **MATSEC Matriculation Certificate**, *St Aloysius' College Sixth Form, Malta*.
Advanced (*A-level*): Pure Mathematics (A), Computing (A).
Intermediate (*equivalent to AS-level*): Accounting (A), Maltese (A), Physics (B), Systems of Knowledge (B).

2008 – 2013 **MATSEC O-Levels**, *Immaculate Conception, Malta*.
11 O-levels with grades A–B.

Professional Experience

2020– **Software Developer**, *Simply VC*, Malta.
My role is 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.

Awards and Scholarships

2020 **Endeavour Scholarship**, *M.Sc. Computer Science*, University of Nottingham.
Awarded a scholarship to pursue my master's degree by the Endeavour scholarship scheme, which supports tertiary education and is administered by the Ministry for Education and Employment in Malta, and is part-financed by the European Union.

2019 **BehAPI Summer School**, Leicester, UK.
Offered a fully-funded place at the BehAPI Summer School organised by the University of Leicester. This consisted of a week of theoretical and practical sessions on the concept of behavioural APIs, with talks from academia and industry on topics such as session types, runtime verification, and cybersecurity.

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**