# Stefania Damato

## Curriculum Vitæ

\$\mathre{\pi}\) +44 7493 320 127
\$\mathre{\mathre{\pi}}\] sdama01 @ um.edu.mt
\$\mathre{\pi}\] stefaniatadama.com

### Education

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

Obtained highest final average mark in my 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  $f: A \to B$  and  $g: B \to A$ , then there exists a bijection  $h: A \to B$ . 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.

- 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, 14<sup>th</sup> London Hopper Colloquium, Online.

Oct 2020 Constructing Simple and Mutual Inductive Types in Agda.

Agda Implementors' Meeting XXXIII, Online.

## Awards and Scholarships

2020 **Best Overall MSc Academic Achievement**, *M.Sc. Computer Science*, University of Nottingham.

Awarded for obtaining the highest final average mark in my master's course.

- 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, T<sub>E</sub>X and L<sup>A</sup>T<sub>E</sub>X. 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