

Statement of Purpose

The design and implementation of principled and useful programming languages is the primary focus of my research. As a PhD student at Chalmers University, I currently work on programming languages for “Internet of Things” (IoT) devices which provide the developer with language-based tools for reasoning about security properties of their application.

In line with this, I (along with Carlos Tomé Cortiñas) have submitted a paper to the *Programming Languages and Analysis for Security* (PLAS) workshop (co-located with the Conference on Computer and Communications Security (CCS) 2019), which has been accepted for presentation. Our paper, titled “Simple Noninterference by Normalization” develops a new algorithmic proof technique for proving a security property of programming languages called *noninterference*. Unlike previously known techniques to prove noninterference, our technique is primarily automatic and hence enables automated analysis of noninterference of various program components.

In light of the acceptance of our paper, I hope to attend PLAS, and also wish to attend CCS (the main conference), which takes place prior to PLAS. As a PhD student who is new to the field of security, I also hope to take this opportunity to learn about the various security disciplines, and to network with the security researchers at the conference.

Although my university provides me with some base funding to attend conferences, I am seeking a travel grant to cover the remaining expenses. I outline my expected overall travel expenses below.

Registration	770 \$
Travel (Flights and local)	147 \$
Food	120 \$
Accommodation	466 \$
Total	1,503 \$

The university assured funding, in general, covers travel, food and accommodation costs. A travel grant will help me cover the registration cost of the conference.

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