

I am a PhD student at the University of Groningen in The Netherlands since October 2019, under supervision of Jorge A. Pérez. My research topic is correctness of communicating software, focussed on session types and their connection to linear logic. Though most of my work is theoretical, I am interested in the practical implications of my work and its feasibility in realistic scenarios. I am a quick learner and enjoy studying subjects/techniques outside my comfort zone.

During my PhD I have published several collaborations with my supervisor at workshops. Unfortunately, most of the duration of my PhD there were limited possibilities of initiating collaborations outside my department, because travel was limited due to the corona pandemic. This changed early 2022, after which I started and completed several projects with collaborators from outside my department. One of these projects has been published, several are under submission at conferences. From September until November 2022 I was a visiting scholar at Carnegie Mellon University in Pittsburg, Pennsylvania, USA, under the wing of Stephanie Balzer. Here I gave several seminars on my own work, and started a research collaboration that is still ongoing.

Date of birth 8 February 1993

## Academic publications

- Oct-2022 **A decentralized analysis of multiparty protocols**, with Jorge A. Pérez, Science of Computer Programming  
<https://doi.org/10.1016/j.scico.2022.102840>
- Oct-2022 **A bunch of sessions: a propositions-as-sessions interpretation of bunched implications in channel-based concurrency**, with Dan Frumin, Emanuele D'Ossualdo, and Jorge A. Pérez, OOPSLA 2022  
<https://doi.org/10.1145/3563318>
- Sep-2022 **Asynchronous Functional Sessions: Cyclic and Concurrent**, with Jorge A. Pérez, EXPRESS/SOS 2022  
<https://doi.org/10.4204/EPTCS.368.5>
- Oct-2021 **Deadlock Freedom for Asynchronous and Cyclic Process Networks**, with Jorge A. Pérez, ICE 2021  
<https://doi.org/10.48550/arXiv.2110.00146>
- Apr-2020 **Session Type Systems based on Linear Logic: Classical versus Intuitionistic**, with Jorge A. Pérez, PLACES 2020  
<https://doi.org/10.48550/arXiv.2004.01320>

## Education

- Sept-2017 **Logic**, University of Amsterdam, Amsterdam, MSc
- Sept-2019 Computational track
- Research projects
  - The process of purely event-driven programs
- Supervisors: Dr. ir. B. Diertens and Dr. A. Ponse

- Purely event-driven programming in PSF and Go  
Supervisors: Dr. ir. B. Diertens and Dr. A. Ponse
- Curry-Howard correspondence for concurrent programming: a case study  
Supervisor: Dr. J.A. Pérez, Co-supervisor: Dr. A. Ponse
- Analysing multiparty session types in a binary setting  
Supervisor: Dr. J.A. Pérez, Co-Supervisor: Dr. A. Ponse
- Thesis The Logic of Fault-tolerance in Message-Passing Concurrency  
Supervisor: Dr. J.A. Pérez, Co-Supervisor: Dr. A. Ponse  
Grade: 8
  
- Sept-2012 **Computer Science**, *University of Amsterdam*, Amsterdam, BSc  
–Sept-2017  
Thesis Purely event-driven programming  
A theoretical design of a programming language focussed around a purely event-driven programming paradigm  
Supervised by Dr. ir. B. Diertens and Dr. A. Ponse  
Grade: 9
  
- 2005–2012 **VWO**, *Damstede*, Amsterdam, *Gymnasium*  
Profile NT (Natuur en Techniek)  
[Employment](#)
- Oct-2019 **PhD student**, *University of Groningen*, Groningen  
–present Supervisor: Jorge A. Pérez
  
- Oct-2016 Several Teaching Assistant jobs  
–Aug-2019
  - UvA - Webklas Informatica (High school; Dr. A. Ponse and Dr. I. Bethke)
  - UvA - Theoretical Aspects of Programming (BSc; twice; Dr. A. Ponse)
  - UvA - Automata and Formal Languages (BSc; twice; Dr. I. Bethke)
  - VU - Protocol Validation (MSc; Dr. A. Ponse)
  
- Sept-2018 **Independent programmer**, *Bas Programmeert een Beetje*, The Netherlands  
–Oct-2019 Self-employed programming and related work.
  
- Oct-2010 **Lead developer**, *Het Zwarte Fietsenplan B.V.*, Amsterdam  
–Sept-2018 Het Zwarte Fietsenplan is a chain of bicycle stores, involved in sale, repair, lease and rental of bikes. The company uses an intranet website to manage schedules, tickets, and many micro-management related functionality.
- 2010–2013 Maintaining the existing system using PHP/JavaScript, and adding new functionality
- 2013–2018 Employing fellow students and developing a new system using Python/JavaScript

- 2007–2010 **Several spare-time jobs**, Amsterdam  
 Door-to-door magazine delivery, supermarket stockboy, mail delivery.
- [Other activities and accomplishments](#)
- 2016–2017 **Studied Slavic Languages en Culture (Russian) BA**, *University of Amsterdam*,  
*Not completed*
- 2015–2016 **Chairman of symposium “Awesome IT”**, *VIA, University of Amsterdam*
- 2014–2015 **Board (Chief of Education) of study association VIA (Informatics)**, *University of Amsterdam*
- 2012–2016 **Diverse study association involvement**, *VIA (Informatics), University of Amsterdam*  
 Supervised several committees, edited the magazine, worked on the website, and several other activities.
- 2012 **Price for best profile thesis**, *Damstede*, Amsterdam
- 2010–2012 **Shell Ecomarathon**, *Damstede*, Amsterdam  
 Participation in race with energy-efficient vehicles, using a hydrogen engine.
- 2010–2011 **Editor-in-chief of high school magazine “Drukwerk”**, *Damstede*, Amsterdam
- 2006 **Robocup Junior (Lego)**, *Nemo*, Amsterdam, *3rd place*
- 2005 **Robocup Junior (Lego)**, *Nemo*, Amsterdam, *2nd place*