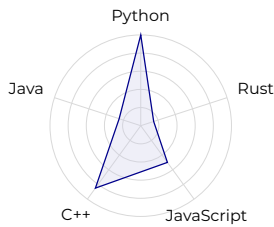# Stephen Sinclair

Amerikalaan 577, Utrecht 3526VX, the Netherlands

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Programming Languages
(years experience)

Technologies
(projects)

Topics
(projects)

Language skills

English	████████	native
French	██████	fluent
Spanish	██████	fluent
Dutch	██	learning

Abilities

✔ Team
✔ Leadership
✔ Research
✔ Communication

Introduction

I have worked throughout my career on high tech projects crossing disciplinary boundaries. My background in computer science, music technology and haptics, has given me a strong skill set at the intersection of signal processing, real-time systems, machine learning, simulation, and robotics.
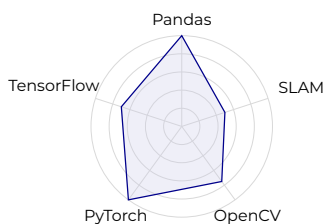
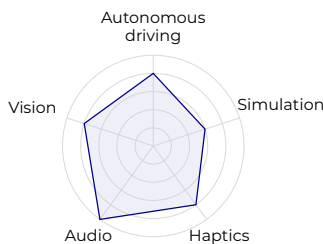**Keywords** software | scientist | perception | interaction | robotics | deep learning

Project experience

AI/Deep learning

2025 Neural speech gen *(Daisys)*
PyTorch | Transformer | Mamba

2022 Few-shot traffic sign classifier *(Navinfo)* ST+VQGAN | PyTorch

2021 Highway topology from images *(Navinfo)* LSTM+CRF | PyTorch

2020 Volumetric segmentation and deformation analysis for skin images *(URJC)* Elastix | TensorFlow

2018 Realtime neural HRTF synthesis *(Enosis VR)* C++ | Unity

2018 Adversarial autoencoder audio *(Inria)* TensorFlow

Computer vision

2022 Traffic sign localization *(Navinfo)* Pandas | OpenCV | SLAM

2021 Highway scenario understanding *(Navinfo)* OpenCV

Haptics

2019 Optimisation control of haptic ultrasound array *(URJC)*
C++ | Python

2019 Force sensors for skin tomography experiment *(URJC)*
Electronics

2015 Displacement triggers for tribometry experiment *(UPMC)*
Electronics | Xenomai | Python

2012 Haptic-audio interaction, filter optimization *(Masters, PhD)*
C++ | Embedded DSP | Python

2004 Drivers for 6-DOF haptic arm *(MPBT)* C++ | Java | Xenomai | Kernel

Robotics simulation

2017 Physics backend for Gazebo *(Inria Chile)* C++ | Python

Employment history

2022–2025 Daisys BV, chief technology officer.
2019–2022 Navinfo Europe, contractor, senior software engineer.
2018–2019 Uni. Rey Juan Carlos, senior research fellow.
2015–2018 Inria Chile, research software engineer.
2013–2015 Institut Syst. Int. Robotiques (Paris 6), research fellow.
2005–2012 McGill University, grad student.
1998–2010 MPB Technologies Inc., software engineer (part, 2004 full).

Education

2005–2012 McGill University, (Montreal, Canada). PhD & Masters.
2001–2004 Concordia University, (Montreal, Canada). B.CompSci.