



CONTACT

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🇧🇪 Belgian

TECHNICAL SKILLS

- Python, R, MATLAB, JavaScript, LaTeX, HTML/CSS, Shell Scripting
- Full-Stack Research Tools, Browser Extensions & Reproducible Pipelines
- Large Language Models & Explainable AI
- HPC Workflows & Docker Containerization
- Agentic GraphRAG & Ontology-based Reasoning
- EMA, mIVAR & Clinical Network Modelling
- Neuroinformatics for Clinical Translation
- Cognitive Warfare & Digital Autonomy Research
- Scientific Communication & Stakeholder Briefing

LANGUAGES

Dutch
Native

English
Proficient

French
Intermediate

Spanish
Intermediate

Stijn Van Severen

AI FOR CYBER- & NEUROPSYCHOLOGY

Building research-grade AI systems, reproducible analytical pipelines, and cyber- and neuropsychology applications for studying political behavior, biopsychosocial health, and cognitive security issues.

PROFESSIONAL EXPERIENCE (7)

Founder & CEO of FeedPilot

Jun 2026 - Present

FeedPilot, Ghent · Browser-based AI agent for social feed alignment

- Founded and built FeedPilot, a cross-browser AI agent that reads visible social feeds in real time, scores posts against a user's stated goal, and can selectively signal engagement or skipping to reshape future recommendations toward personal alignment, with goal-driven scoring, multimodal feed understanding, transparent explanations, user-controlled autonomy, and GDPR-oriented data minimization.

Key skills: agentic AI, browser-extension architecture, cross-browser compatibility, real-time DOM and media analysis, privacy-first product design

Academic Researcher

Dec 2024 - Present

Ghent Health Psychology Lab, Ghent University

- At the Ghent Health Psychology Lab, I contribute to six research projects focused on developing personalized digital health applications and data-driven methods for cancer survivors and people living with chronic pain.

Key skills: personalized digital health, back-end development, LLM-assisted research, EMA, accelerometry, multilevel network modelling, systematic reviews, data engineering

NeuroHackademy Participant and Project Contributor

Jul 2026

University of Washington eScience Institute, Seattle

- Participated in NeuroHackademy 2026, a two-week intensive program combining neuroimaging, data science, open science, technical training, and a collaborative hackathon; in which I contributed to four projects.

Key skills: agentic AI, neuroinformatics, multimodal neuroimaging, explainable AI, reproducible pipelines, Docker, open science, scientific visualization

NATO HFM-428 Research Workshop

May 2026

Technology Enablers for Cognitive Warfare: Operator and Technical Perspectives · Amsterdam

- Selected for a 2-day NATO research workshop as a subject matter expert on technology enablers for cognitive warfare, contributing high-level methodological input on ontology-based state-space modelling, LLM-assisted simulation, and red-team to blue-team evaluation logic.

Key skills: cognitive warfare, cyberpsychology, ontology engineering, LLM-based simulation, adversarial modelling, institutional resilience

Research Intern

Sep 2025 - Mar 2026

Instituto de Investigación Sanitaria Biobizkaia, Bilbao · Supervised by Ibai Díez, Assistant Professor at Harvard Medical School

- Designed and engineered COMPASS engine, an open-source multi-agent system for multimodal zero-shot phenotypic prediction for neuropsychiatric disorders; integrating LLM-driven reasoning on hierarchical normativized deviation maps, an interactive dashboard, and HPC workflows with full Docker containerization across large-scale open-access neuroimaging datasets including the UK Biobank and NKI-Rockland Sample. Final evaluation: 19/20.

Key skills: multi-modal data integration, LLM-based pipelines, explainable AI, HPC scheduling, Docker, academic research & communication

Software Developer of GraphRAG Platform

Dec 2025 - Feb 2026

Instituto de Investigación Sanitaria Biobizkaia, Bilbao

- Developed and maintained a private full-stack agentic GraphRAG platform for interacting with an internal biomedical knowledge base, integrating retrieval-augmented generation with ontology-based reasoning.

Key skills: GraphRAG, semantic search, ontology engineering, REST API design, full-stack development

Production & Logistics Operator

Jul 2017 - Aug 2024

Bosspaints, Waregem

- Six years as a student employee in industrial production, logistics, and infrastructure maintenance. Progressively took on greater responsibility from production line work to process optimization, order management, and cross-departmental coordination.

Key skills: logistics coordination, technical maintenance support, teamwork, operational problem-solving

EDUCATION (4)

Master's Degree: Experimental Psychology

09/2024 - 07/2026

Specialization in Neuroscience · Ghent University

- Thesis: "Toward Next-Generation Mental Health Applications: An Adaptive Approach to Idiographic Modelling by Leveraging Ontology-based Agentic AI" (evaluation: 19/20).

Credit Contract: Biomedical Engineering, Neuro-Engineering

09/2024 - 07/2025

Ghent University

- Master-level credit-based program focusing on the interface between neuroscience, engineering, and data science, aimed at expanding technical and translational expertise in neurotechnology.

Credit Contract: Individualized Trajectory in Engineering

09/2023 - 07/2024

Ghent University

- Obtained Human Data Research certificate (CITI Program, ref. 67925818), FELASA Category C (equivalent) certificate, and university-issued certificates in Artificial Intelligence and Programming in Python.

Bachelor's Degree: Psychology

09/2021 - 07/2024

Theoretical & Experimental Psychology · Ghent University

- Curriculum emphasizing cognitive and experimental psychology, behavioral science, and quantitative research methods.

SELECTED RESEARCH MANUSCRIPTS (7)

Inter-individual Differences in Susceptibility to Cyber-manipulation of Political Opinions

2026

Van Severen · De Schryver · Ostyn · Ghent University

- Ontology-based multi-agent simulation of cyber-manipulation in political opinion spaces. Formalizes PROFILE, CYBER-ATTACK, and OPINION as multi-layered taxonomies, generates profile-opinion-attack scenarios, and estimates private and exposure-network susceptibility with structural equation, multilevel moderation, and graph-based amplification analyses.

 [stvsever/research_paper_on_cybermanipulation_susceptibility](https://github.com/stvsever/research_paper_on_cybermanipulation_susceptibility)

"Walk on": Physical Activity Dynamics in Fibromyalgia Patients

2026

De Paepe · Van Severen · Van Dyck · Crombez · Ghent University

- Reproducible EMA manuscript on objective physical activity in fibromyalgia, combining 1,474 completed assessments across 34 patients with wrist-accelerometer ENMO, mIVAR network models, robustness checks, and R/Python orchestration for manuscript-ready figures and tables.

[stvsever/research_paper_on_physical_activity_in_fibromyalgia_patients](#)

PHOENIX Engine - Research-grade Software Tool Developed During my Master's Thesis on Next-Gen Mental Health Applications

2026

Van Severen · Ghent University · Supervisor: Geert Crombez

- Research-grade multi-agent system conceptualizing mental health support as a closed-loop workflow: from free-text complaint intake through idiographic time-series modelling, ontology-backed reasoning, and iterative intervention design. Integrates a custom PHOENIX ontology, LLM-based agentic pipeline, CI/CD, and Flask frontend.

[github.com/stvsever/ThesisMaster](#)

COMPASS Engine - Clinical Ontology-driven Multi-modal Predictive Agentic Support System Developed During my Internship

2026

Van Severen · Díez · Cortés · Ghent University / IIS Biobizkaia

- Clinical ontology-driven multi-agent system for multimodal phenotypic prediction from hierarchical deviation maps and non-tabular health records. In a first validation study on a 200-participant UK Biobank benchmark spanning five disorder families, COMPASS achieved 0.725 aggregate accuracy with balanced sensitivity and specificity.

[github.com/stvsever/COMPASS-Engine](#)

Cognitive Bias Vulnerability Across Emotional States in Cyber-Relevant Decision Contexts

2026

Van Severen · Ghent University

- Preregistered manuscript mapping how transient emotional states amplify or attenuate cyber-relevant cognitive bias vulnerability. Combines a hierarchical taxonomy of 200 biases with 2,629 emotion-conditioned bias scores across 239 emotions, identifying arousal as the main amplifier and perceived control as the strongest attenuator.

[stvsever/research_paper_on_cognitive_biases...](#)

Hedonic Bias in the Conceptualisation of Patient Progress in Well-Being

2026

Van Severen & De Schryver · Ghent University

- Computational meta-analysis embedding 189 clinical scales with text-embedding-3-large, demonstrating a large hedonic convergence bias (Cohen's $d = 0.94$) in Western mental healthcare assessment, 2000-2025. Includes a reproducible 13-step pipeline with Docker, PubMed corpus processing, and Google Books Ngram replication.

[stvsever/research_paper_on_eudaimonia_in_healthcare](#)

Maladaptive Perseveration: Irrefutable Belief Systems & Insightful Reasoning

2025

Van Severen · Ghent University

- Experimental study combining psychographic modelling and computational neuroscience. Priming with irrefutable reasoning styles significantly increased reaction times on insight tasks. Full PsychoPy experiment, raw data, and R/Python analysis published open-source.

[stvsever/research_paper_on_unfalsifiability](#)