Paul-Emmanuel Sornette

AI-native engineer & founder: I ship iOS, watchOS, Android, backend and research end-to-end with AI agents

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PROFILE

ETH Zürich engineer (mechanical + architectural) and two-time founder. I run AI agents as my engineering team: one person designing, building and operating native apps, their backends and infrastructure, and the research behind them.

EXPERIENCE

Founder & CEO · Logic Workout / LogicSports GmbH · Zürich / Los Angeles **2024 – Present** · concept since 2012

- **Solo developer and designer of the Logic suite**, built with Claude Code as the engineering team: *Logic Workout* (iOS, watchOS, widgets, Android), *Logic Breathing* (iPhone + Apple Watch, Android), *Logic Dreaming* (iOS, Android) and *LES Research* (iOS / watchOS, 50 Hz motion capture to analyse tremor and acceleration).
- **Agentic engineering system** (I set the ideas, architecture and specs; agents do the long work): iOS→Android ports run by agents through a written change-log contract; an LLM reviewer agent gating an automated event-import pipeline, validated on labelled cases (Haiku 18/19, Opus 19/19); a hardened Claude proxy on Cloudflare Workers behind Logic Dreaming (prompt and model allowlists, token caps, rate limits).
- **Infra & growth:** AWS (S3, CloudFront, ECR, Lambda) as code with OpenTofu; static Astro sites; App Store discoverability overhaul (titles, keywords, product pages) shipped for Breathing and Dreaming, Workout in progress.
- **Method & research:** created the **Reactive Falling Effect**, a neuromuscular training method built on reacting to a deforming logic-ball. Over 6–8 months of following athletes and patients (self-reported outcomes): Olympic athletes +20% on personal records within a month; rehabilitation progress where physiotherapy had stalled; improvements reported by people with Parkinson's. Controlled data coming: 6-week RCT and EMG study designed with the LAMHESS lab (Université Côte d'Azur).
- Co-authored two **arXiv preprints** with Prof. Didier Sornette (ETH Zürich, em.): 2506.13959, 2510.23093; a version for peer review is in preparation. IP: LES measurement methodology and a directional-rotation algorithm. Wrote the **Logic Workout trainer certification** (guide + exam).

Co-founder & CEO · Axir / CATCH (started as Catchapp) · Los Angeles **2017 – Present**

- Event-based social app for finding sport partners. **Raised $600k**, 20k MAU, self-sustaining and still operating. Built and led a team of 6; owned product, design and iOS engineering end-to-end.
- Today I maintain the full stack with AI agents: native Android port (Kotlin / Jetpack Compose) built from the iOS spec; Kotlin/Java backend (Jersey, MySQL, Redis, MongoDB, MQTT) on AWS, provisioned with Ansible.

Architect · Tilla Theus Architects, Zürich · independent practice, Dolomites / Lake Garda **2015 – 2017**
Projects from a $10M private residence to a $200M skyscraper; designed and built a chalet in the Dolomites and an apartment on Lake Garda.

Architect / **Assistant Researcher** · ETH Zürich, Block Research Group **2013 – 2015**
Part of the team that developed the world's first unreinforced compression-tension structure; computed 3D force flows for the lightest, strongest forms.

Third Engineer, Seaman · Cargo ship · 5 months **2011**
Ran a 25,000-hp main engine and 20+ auxiliary systems (power, pumping, desalination) on a 600+ ft vessel.

EDUCATION & DISTINCTION

BSc Architectural Engineering, ETH Zürich **2012 – 2015**
Exchange semester, SCI-Arc, Los Angeles **2012**
BSc Mechanical Engineering, ETH Zürich **2009 – 2012**
Classes préparatoires, Maths Sup / Spé, AKAD **2007 – 2009**

2nd place, ETH Zürich Robotics Engineering competition. Designed a Mars-rover wheel able to clear obstacles up to 50% of its own size.

SKILLS, LANGUAGES & INTERESTS

AI Claude Code (agentic workflows, CLAUDE.md, sub-agents) · Claude API · context engineering · LLM reviewer agents
APPS Swift · SwiftUI · watchOS · macOS · WidgetKit · Kotlin · Jetpack Compose · Kotlin Multiplatform · Python · TypeScript
BACKEND & INFRA Kotlin/Java (Jersey) · MySQL · Redis · MongoDB · MQTT · AWS · Ansible · OpenTofu · CF Workers
SCIENCE & SIGNAL DSP (FFT, Welch PSD) · biomechanics · study design (RCT, EMG) · 3D force-flow modelling
DESIGN Rhino 3D · Sketch · Pixelmator Pro · Final Cut Pro
LANGUAGES French (native) · English (fluent) · German (C1) · Italian (C1)
BEYOND WORK Kitesurfing (17 m jumps) · skiing · fitness · neuroscience · architecture · literature