

Gustav Skrefsrud

Full-stack systems builder, from firmware to interface

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PROFILE

Engineer who designs and builds custom systems shaped around one specific product or business: embedded firmware and BLE, mobile and web interfaces, backends and the tools around them. Strongest at the architecture that ties them together: contracts between components, security and trust chains, and data privacy boundaries. Also owns what surrounds the code: manufacturer handover, grants and technical planning. Available now for a steady part-time role, 8-15 h/week, remote or in Amsterdam.

EXPERIENCE

Co-founder, software and firmware lead · ThetaMask, Trondheim 10/2024 - now

Built the full v2 technical platform for a light-based research mask. v1 was used in a study at the Donders Institute (Radboud University); v2 is built for research with TNO.

- **System architecture:** designed the end-to-end system in a single codebase: Nordic nRF52 firmware, mobile app, backend, researcher portal and authoring tools, all built against one versioned firmware/app contract with shared test vectors.
- **Firmware** (C, Zephyr / nRF Connect SDK): custom BLE GATT service, LED driver, MCUboot with Bluetooth and USB-C update paths. The device verifies every program (integrity, signature, safety limits) before running it.
- **Mobile app** (React Native / Expo, TypeScript): program transfer and live session monitoring over BLE. Four build variants; over-the-air updates in development only.
- **Backend** (Supabase Postgres, edge functions): study configuration delivery, offline-first upload queue gated on consent, pseudonymous research data kept apart from identifying data.
- **Researcher portal** (Next.js): two-factor login, participant enrolment via QR tokens, data export for analysis.
- **Program creator:** visual tool for designing light programs, previewed live through the firmware's own rendering code compiled to WebAssembly.
- **Certification and production:** researching the certification path for v2. Handled communication with our manufacturer through v1's production run, and ran firmware handover and acceptance testing with the hardware co-founder.
- **Funding:** wrote grant applications; awarded by NTNU Discovery and Aneo.

Founder · UtleieFlyt, Trondheim

11/2025 - now

Vertical SaaS for Norwegian rental businesses (scaffolding and event equipment): customer catalog, availability-aware booking, inventory and admin. Built and maintained alongside my other work; pre-revenue.

CEO · Pango Consulting, Trondheim

08/2025 - 01/2026

Led a student-run consultancy of around 40 people, coordinating client projects in strategy, technology, design and digitalisation.

Tech consultant · Pango Consulting, Trondheim

02/2024 - 08/2025

Full-stack development in TypeScript, Next.js, PostgreSQL and Tailwind. Integrated Vipps payments in a ski trail donation site (fellesen.no).

Web developer, freelance · Steelco and skistativ

06/2025 - 08/2025

Designed and delivered steelco.no and skistativ.no in Next.js and Tailwind, with visitor and click analytics.

BEYOND WORK

Elite volleyball: played in Norway's top division for NTNUI throughout the degree, and coached the NTNUI women's elite team. Also into chess, music and books.

EDUCATION

MSc Entrepreneurship

VU Amsterdam & University of Amsterdam, joint degree
2026 - 2027 (expected)

BSc Digital Business

Development
NTNU, Trondheim. GPA 3.91 / 5.0 (Norwegian A-E scale, A = 5). Thesis graded A, co-authored: [User experience and technology acceptance in a self-service integration module](#) (in Norwegian)
2023 - 2026

Cognitive Science

University of Bergen (transferred to NTNU)
2021 - 2022

SKILLS

Embedded

C Zephyr / nRF Connect SDK
nRF52 ESP32 / Arduino
BLE (GATT) MCUboot / DFU

Software

TypeScript Python SQL
React Native / Expo React
Next.js WebAssembly

Data and infrastructure

PostgreSQL Supabase
Edge functions Vercel
Expo EAS Git

Security and privacy

Code signing Key management
Privacy by design

Business

Product management
Fundraising Digital strategy
Project management

LANGUAGES

Norwegian (native)
English (full professional)

AVAILABILITY

8-15 h/week now; open to discussing more hours after the MSc (August 2027). Employment or contract. Norwegian citizen, no work permit needed in the EU/EEA.