# Aario Shahbany

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German citizen resident in Spain. No visa sponsorship needed anywhere in the EU. Available for remote work, permanent preferred.

## Profile

Backend and systems engineer with 15 years of professional software development across eCommerce platforms, distributed infrastructure and low-level C/C++ work. I currently build and run Velyora, a zero-knowledge encrypted SaaS written in Go, where I designed the cryptography, the backend, the frontend and the deployment pipeline on my own.

I work in Go, PHP, C and C++, and I am as comfortable in writing SRP authentication from primitives or GPU compute shaders as I am in leading a team on a Symfony API. I led a team of five engineers at Kfzteile24 and have worked remotely with distributed teams since 2015.

## Selected projects

**Velyora — zero-knowledge SaaS.** 2026 to present. velyora.app

Attendance and member management for churches, built so the server cannot read member data. Sole architect and developer.

- Authentication with SRP-6a implemented from primitives, so no password or password-equivalent ever reaches the server.
- Per-record data encryption keys, wrapped per recipient with ephemeral ECDH, and a key-encryption key derived from the passphrase. Private keys stay in IndexedDB on the device.
- Key rotation that refuses to complete unless every event, note and account link has been re-encrypted, so a partial rotation cannot leave records unreadable.
- Account recovery through a printed QR code, with the passphrase length budgeted against QR capacity.
- Multi-tenant with role-scoped access, Stripe subscription lifecycle, GDPR export and erasure, trial and grace-period handling, five languages.
- Around 60 end-to-end Playwright sequences, plus frozen before-and-after tests pinned to each database migration.

- Go, PostgreSQL, Hugo, vanilla JavaScript, Docker, nginx.

**Sahara — game and engine extension.** 2026 to present.

A game built on a custom C++ extension to Godot, planned for release on Steam.

- Terrain generated on the GPU in compute shaders, with a registry of signed-distance-field features: volcanoes split into vents, flows, surface and sites; caves, canyons, craters, basalt columns, travertine terraces.
- Volumetric clouds rendered across separate noise, weather, shadow and upscale passes.
- Character animation with two-bone inverse kinematics for feet and hands, ledge probing and a gait system.
- Flight model for the ship, with mesh deformation and wreckage on impact.
- Python tooling that packs detail textures into albedo and surface maps, and a procedural Blender script that builds the astronaut mesh.
- C++, GDExtension, GLSL compute shaders, Python, Blender.

## Experience

**Senior Software Engineer** · Roastmarket GmbH, Berlin · 2023 to 2026

High-traffic coffee retailer on Magento 2. Migrated the shop from Magento 1 and built extensions for product subscriptions, newsletter handling, Google feed and campaign synchronisation, ERP integration and several payment providers. Tuned collection and search-criteria code against the queries it actually produced, since page latency fed straight into customer experience. Built the API that connects the Magento backend to a Vue Storefront PWA frontend. PHP 8, MySQL, Docker.

**Tech Lead** · Kfzteile24 GmbH, Berlin · 2020 to 2023

Led five frontend and backend engineers on the product information system behind an automotive parts catalogue covering millions of parts and their compatibility with thousands of vehicle models. Designed a code generator following the TecDoc standard that emits the data structures, a Swagger file generated from the API code and the calling user's permissions, and a frontend that renders its pages from that Swagger file at runtime. PHP 8.2, Symfony 5.4, PostgreSQL, SQL Server, AWS (ECS, S3, RDS, CodePipeline, Glue, Athena, Cognito).

**Senior Software Engineer** · Sitewards GmbH, Frankfurt · 2018 to 2020

eCommerce consultancy. Turned Magento 2 shops into multi-vendor marketplaces, implemented complex discount and customer-group rules, and designed the data interchange between shop systems and SAP. Built deployment pipelines and worked on

autoscaling infrastructure with Kubernetes. REST APIs for booking, payment and shipping gateways. PHP, JavaScript, Kubernetes, Docker, AWS, GCP.

**Senior Software Engineer** · Steinjaeger GmbH, Berlin · 2017 to 2018

Architecture and backend for a central ERP, accounting and project management system covering the company's subdivisions worldwide, built on the twelve-factor model with microservices connecting the eCommerce and CRM systems to it. Generated manufacturing and purchase orders from sales and inventory forecasts. Trained deep learning models to set sale prices, forecast inventory and adjust advertising budgets, which let the company manufacture three months ahead and stop losing orders to low stock. PHP, Zend, Symfony, Python, AWS.

**Software Developer** · Wayfair, Berlin · 2016 to 2017

Transportation management system for one of the largest online home goods retailers. Moved legacy procedural PHP onto an MVC architecture, optimised SQL queries, and maintained the REST and SOAP integrations with shipping carriers used by delivery agencies worldwide. PHP, JavaScript, SQL Server.

**Systems Engineer, Platform Operations** · Groupon GmbH, Berlin · 2015 to 2016

DevOps team building a central caching service on Redis and Twemproxy. Contributed C patches upstream for dynamic instance switching and multi-threading, which removed the need for keepalived in the failover path. Changed how Twemproxy gathered statistics for log strings and cut roughly 15% off normal workload. Wrote the Ansible playbooks that deploy the cache cluster and its load balancers. C, pthreads, Ansible, Redis.

**Software Developer** · Vaimo AB, Stockholm · 2014 to 2015

Magento modules for payment, ERP and mail delivery integration, and extraction of data structures from third-party ERP databases. Wrote a module that sends themed promotional email a set number of days after a customer's last purchase, which was installed for several clients. PHP, Zend, JavaScript.

**Linux Developer** · Aztek Co., Dubai · 2013 to 2014

Networked C++/Qt software for satellite TV studios: controls dishes, receives and records DVB-S MPEG2 and H.264 streams, and relays them over the local network to portable devices. Shipped as the product DV-Bee. Multi-threaded, with a custom embedded web server. Proposed replacing PCI tuner cards with satellite LAN gateways, which simplified the architecture and improved reliability.

**Software Engineer** · Tecnotree, Bangalore · 2011 to 2013

Technical lead for high-availability Linux and SunOS value-added-service and prepaid servers at a telecom operator, in an ITIL environment. Built a monitoring and configuration management system in Perl and Python that reports, graphs, alerts by email and SMS, and runs maintenance routines automatically. Received a company award for meeting customer SLAs in 2012.

## Open source

- slock-blur — X11 lock screen that blurs a screenshot of the desktop. I ported the stack-blur algorithm to Linux, made it multi-threaded with pthreads and hardened it against crashes.
- dwm — patches to the suckless tiling window manager, including CPU-based blur.
- CV Assistant — cross-platform C++/Qt application that stores a master resume as XML, matches its skills against a job advertisement, and exports a formatted .docx. Dynamic QObject management for a form that grows and shrinks as the user edits.
- Magento 2 ShipmentInvoice — lets customers generate and print invoices per shipment from their account page.
- Sabotage Linux — a source-based distribution on musl libc and busybox. I contributed packages, including Qt5, which needed patches to build against musl.

## Technical skills

| Area | |
|---|---|
| Languages | Go, PHP 8, C, C++, Python, JavaScript, SQL, Bash, Perl |
| Backend | Symfony, Zend, Magento 2, REST and SOAP APIs, microservices |
| Data | PostgreSQL, MySQL, SQL Server, Redis, Elasticsearch |
| Cryptography | SRP-6a, ECDH key wrapping, AES-GCM, PBKDF2, WebCrypto |
| Infrastructure | Docker, Kubernetes (CKA), Ansible, AWS, GCP, nginx, Apache, php-fpm |
| Frontend | Vanilla JS, HTML5, CSS, Hugo, Vue Storefront, jQuery |
| Graphics | GLSL compute shaders, Godot GDExtension, Qt/QML |
| Practice | Test-driven development, Playwright end-to-end testing, CI/CD, Git, code review, Agile |

## Education, certifications and languages

**BSc Electronics Engineering** · Azad University · 2005 to 2009. Assessed as equivalent to a German Bachelor in Elektroingenieurwesen, Elektronik by the Zentralstelle für ausländisches Bildungswesen, October 2014.

**Certified Kubernetes Administrator** · Cloud Native Computing Foundation

Also: ITIL Foundation (APMG-International), FreeBSD for Linux System Administrators (iXsystems), data protection training (lawpilots).

**Languages:** English fluent, German intermediate, Spanish basic.