# Sveinbjörn Geirsson

Software Developer
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<b>₽</b> PGP	
	svnbjrn.is/pgp

# Me

Software engineer with a decade of experience in the payment card industry, focusing on reliability, security, and speed. Passionate about continuous delivery, infrastructure automation, and functional programming, especially in languages where the compiler can be leveraged for robust code validation and optimization.

# **Professional Experience**

# Reiknistofa Lífeyrissjóða

2023 - 2025

Software Engineer

- Developed and maintained software systems serving pension funds, handling everything from mortgages, securities, and their regulatory communications, to managing fund members' disability and retirement benefits.
- Managed the setup and maintenance of X-Road security server; a secure communication layer providing programming interfaces for government services.
- A major part of responsibilities involved reporting to the Central Bank of Iceland; including obligations registry containing status of all mortgage lending.

# Rapyd Financial Services

2013 - 2022

Software Engineer

# **Payment Processing & Settlement**

- Designed and developed a sophisticated settlement engine to calculate merchant fees, rolling reserves, and refunds, incorporating complex clearing logic.
- Developed a flexible payment orchestration system to manage domestic and international transfers with intelligent batching.
- Integrated loyalty program balance systems with real-time reconciliation capabilities.

#### **Financial Systems Integration**

- Designed robust Visa/MC reconciliation pipeline with advanced data normalization for seamless ledger integration.
- Implemented sophisticated multi-currency cost/value date calculation system for diverse financial instruments.
- Developed comprehensive chargeback and dispute cost management framework.

# **Reporting & Risk Management**

- Built real-time reporting infrastructure for payment facilitators with automated volume and balance tracking.
- Engineered fraud detection and chargeback resolution systems with advanced reporting capabilities.
- Created optimized database views enabling cross-system integration with minimal domain knowledge requirements.

#### **Core Infrastructure Services**

- Implemented real-time FX rate processing system integrating rates from Visa, Mastercard, and central banks.
- Developed intelligent transaction categorization system for product offerings and geographical boundaries.
- Built systems for processing complex financial data streams including chargebacks and interchange.

# Technical Skills

Core Development	Database Systems	Network Services
<ul> <li>Java</li> <li>Python</li> <li>Scala</li> <li>JavaScript</li> <li>TypeScript</li> <li>C#</li> <li>PHP</li> </ul>	<ul> <li>IBM DB2 (iSeries/LUW)</li> <li>IBM Informix</li> <li>MariaDB</li> <li>MySQL</li> <li>PostgreSQL</li> <li>SQLite</li> <li>Redis</li> <li>SQL-93+OLAP</li> <li>SparkSQL</li> <li>XML+XPath/JSON+GraphQL</li> <li>Arrow</li> <li>Parquet</li> </ul>	<ul> <li>Cloudflare</li> <li>Route 53</li> <li>Apache / Nginx / Traefik</li> <li>X-Road</li> <li>WebRTC+TURN/STUN</li> </ul>
Cloud & Infrastructure	API & Observability	Security & Identity
<ul> <li>GCP / AWS / Oracle Cloud</li> <li>containerd / Docker / Podman</li> <li>k3s</li> <li>Ansible</li> <li>Terraform</li> <li>KVM</li> </ul>	<ul> <li>gRPC</li> <li>OpenAPI/Swagger</li> <li>Datadog</li> <li>Prometheus</li> <li>Sentry</li> <li>Grafana / Loki</li> </ul>	<ul> <li>OAuth 2.0</li> <li>OpenID Connect</li> <li>Certbot+ACME/DNS01</li> <li>MX/DKIM/SPF</li> <li>WireGuard / Tailscale / Shadowsocks</li> </ul>
Development Operations		
<ul><li>Jira / Confluence / Bitbucket</li><li>Kanban / Agile / Scrum</li></ul>		

# **Notable Projects**

• missing.cat 2021

My cat went missing, and amazingly this TLD was available

A full-stack web application initially developed for a time-sensitive personal cause, demonstrating the integration of multiple modern web technologies:

- Ghost CMS for content management and publishing.
- Google Workspace APlintegration for communication services.
- Integrated Facebook Messenger via Causes API.

svnbjrn.is/cat

• ipChecker 2020

Distinguishes domestic network traffic

An Implementation for identifying Icelandic IP addresses using DNS. Follows Reykjavík Internet Exchange (RIX) methodology. Notable for eliminating dependencies on third-party geolocation databases while maintaining high accuracy.

Raudbjorn/ipChecker

svnbjrn.is/ip

**ℱ** rix.is

svnbjrn.is/rix

2019

Knapsack Optimizer Service

Technical Assessment

A sophisticated optimization service implementing solutions for the NP-hard Knapsack Problem. Features include RESTful API design, Docker containerization, async processing, and intelligent caching strategies for improved performance.

Raudbjorn/knapsack-optimizer-service

svnbjrn.is/sack

• Leiguvaktin.is 2014

Supply analysis for the Reykjavik rental market

A real-time rental market aggregator for Reykjavik, featuring automated data collection from multiple sources, data normalization, and a user-friendly interface for market analysis.

Raudbjorn/leiguvaktin

svnbjrn.is/rent-src

🕜 leiguvaktin.is

svnbjrn.is/rent

# Certifications

ûdemy	2023	coursera	2015
DevOps Ansible Automation	svnbjrn.is/nsbl	Usable Security	svnbjrn.is/usc
ûdemy The Rust Programming Language	2018	Coursera Cryptography	2015
The Rust Flogramming Language	svnbjrn.is/rst	Oryptography	svnbjrn.is/cry
coursera	2016	coursera	2014
Functional Programming in Scala	svnbjrn.is/scl	Software Security	svnbjrn.is/ssc

# **Awards**

• Rapyd Internal Hackathon Winner

2021

Adapted the Rapyd Wallet product offering to the WhatsApp business API; successfully created a containerized, fully functional, proof of concept, where a customer can:

- Pay for a restaurant order from inside the app, using a generated link or stored credentials.
  - Using WhatsApp, ask a contact to pay for the order. Upon approval, payment for the transaction comes from the contact's funds.
  - Request a contact pay for the order, and upon approval from inside WhatsApp, would authorize the
    use of their wallet for the transaction.

**■** rapyd.net

svnbjrn.is/rapyd

Rapyd-Samples/whatsapp-checkout

svnbjrn.is/wacheckout

# References

# Tómas Árni Jónsson

Software Specialist @ Deloitte

Partnered on RL's core integration with Central Bank of Iceland's Data Portal, 2023–2024

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# Þráinn Guðbjörnsson

Chief Risk Officer @ Festa Pension Fund

Collaborated on Korta's earliest system as the company's 2nd and 3rd developers, 2013–2017

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