

James Robb

Reykjavik, Iceland

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Industry and Related Work History

Senior Software Engineer

Reykjavik, Iceland

YELLOWBRICK DATA

2022 - Present

I develop and maintain Yellowbrick's data warehouse solution, with a heavy emphasis on the query optimizer and planner. In this role I do a lot of work in the Postgres front-end, but also in the other core-components of the Yellowbrick data warehouse stack. The technologies I primarily use to do this are C, Java, and C++.

Senior Software Engineer

Reykjavik, Iceland

JIKO TECHNOLOGIES

2022

I worked on Jiko's developer experience team to provide the software engineering teams at Jiko with the tooling, infrastructure, and resources needed to realize the variety of products they developed. This includes, but is not limited to, build tools, CI infrastructure, and platform engineering.

Distributed Systems Engineer

Reykjavik, Iceland

CCP GAMES

2020 - 2022

I developed and maintained a distributed messaging infrastructure to support the EVE universe and its associated products. This included developing SDKs and tooling for other teams to use, as well as assisting said teams in the adoption and use of the this infrastructure. This project made heavy use of Golang, Protobuf, and gRPC.

Software Developer

Reykjavik, Iceland

REYKJAVIK UNIVERSITY

2017 - 2018

I extended the INGenious auto-grading system to be able to evaluate student assignments for the university's databases course.

Software Developer and Circuit Designer

Reykjavik, Iceland

UNIVERSITY OF ICELAND

2016

I setup a RDBMS for researchers at the university to store data for their experiments and held seminars on how to use it. In between seminars, I built sensors to transmit experiment data from locations where WiFi internet access is not available.

Software Developer and SCRUM Master

Reykjavik, Iceland

GREENCLOUD (NOW NETAPP)

2013-2014

I took on three primary tasks at GreenQloud. I developed software for GreenQloud's cloud computing API, worked in concert with educational institutes to offer their students and staff cloud-computing resources through GreenQloud, and helped to organize the development teams through the use of the SCRUM process.

Project Manager and Software Developer

Winnipeg, Manitoba, Canada

MODERN EARTH WEB DESIGN

2011-2013

I led custom web projects ranging from simple promotional websites to large LMSs with thousands of users.

Web and Media Developer

Winnipeg, Manitoba, Canada

MIDCANADA PRODUCTIONS

2009-2011

I worked on a variety of supporting tasks for clients of MidCanada Productions. My responsibilities included basic video editing, web development, and interactive media development.

Founder and Media Developer

Winnipeg, Manitoba, Canada

GEARED INTERACTIVE

2008-2011

I co-founded and ran Geared Interactive to offer web, email, interactive media, and print solutions.

Education

Reykjavik University

MSC IN COMPUTER SCIENCE

Reykjavik, Iceland

2018 - 2020

- Specialization in Real-Time Systems.
- Semester Abroad at Emory University in Atlanta, USA.
- Semester Abroad at the Max Planck Institute for Software Systems in Kaiserslautern, Germany.

Reykjavik University

BSC IN COMPUTER SCIENCE AND DISCRETE MATHEMATICS

Reykjavik, Iceland

2015 - 2018

- Average Grade: 9.58/10.

Honors & Awards

- | | | |
|------|---|--------------------|
| 2018 | Alan Turing Scholarship , Full-Tuition Scholarship for the Master's Program at Reykjavik University. | Reykjavik, Iceland |
| 2017 | Spring Dean's List , Reykjavik University School of Computer Science - Grades in the top 2-3%. | Reykjavik, Iceland |
| 2016 | Fall Dean's List , Reykjavik University School of Computer Science - Grades in the top 2-3%. | Reykjavik, Iceland |
| 2015 | Fall Dean's List , Reykjavik University School of Computer Science - Grades in the top 2-3%. | Reykjavik, Iceland |

Non-Profit Work

Mathematics Tutor

Atlanta, Georgia, United States

COMMON GOOD ATLANTA

2018

I donated my time to prisoners in person at Philips State Prison in Georgia, USA to aid them in completing their homework and learning the material presented in their mathematics courses.

Software Developer

Sarajevo, Bosnia and Herzegovina

OCCRP (ORGANIZED CRIME AND CORRUPTION REPORTING PROJECT)

2015

I aided in the rewrite/port of an application called Investigative Dashboard. Investigative Dashboard provides a data portal to journalists seeking information on individuals suspected of involvement in the world of organized crime.

Project Lead / Software Developer

Reykjavik, Iceland

ÖRYGGISVENTILL (SAFETY VALVE)

2014

I led the creation of an open source project to allow the citizens of Iceland to act collectively as a shadow parliament. Safety Valve gives citizens the ability to add verified digital signatures to petitions in support or in objection of bills in Icelandic parliament. The project is available online at github.com/piratar/safetyvalve

Hackathon Organizer and Volunteer

Reykjavik, Iceland

STARTUP ICELAND

2014-2015

I led the organization of the yearly hackathon that precedes the Startup Iceland conference, and aided in various other tasks.

Research

Nested, but Separate: Isolating Unrelated Critical Sections in Real-Time Nested Locking

REYKJAVIK UNIVERSITY / MAX PLANCK INSTITUTE FOR SOFTWARE SYSTEMS

2019-2020

Björn Brandenburg and I introduced a novel real-time fine-grained nested locking protocol for real-time systems. Our protocol provides temporal isolation for latency-sensitive tasks that access (possibly) nested resources while remaining asymptotically optimal. The paper is published in the proceedings of the 32nd Euromicro Conference on Real-Time Systems.

Identifying Combinatorial Structures for Binary Strings and Set Partitions

REYKJAVIK UNIVERSITY

2018

Sigurður Helgason and I explore how to build combinatorial specifications for avoidance classes of binary strings and set partitions in our bachelor's thesis. We build upon the work of Bean et al. and the CombSpecSearcher system to do so. We show that we can find a combinatorial specification for any avoidance class of binary strings, and combinatorial specifications for many avoidance classes of set partitions.