

# Yahya Jabary

[www.github.com/sueszli](https://www.github.com/sueszli)

[jabaryyahya@gmail.com](mailto:jabaryyahya@gmail.com)

Austrian/EU citizen

[www.yahya.tech](https://www.yahya.tech)

+43 650 4012392

<b>Education</b>	MSc, Data Science · Vienna University of Technology	2024 – present
	BSc, Computer Science · Vienna University of Technology	2019 – 2023
	Gifted Program (NCoC), Mathematics · University of Vienna	2017 – 2019
	Associate Degree (HAK), Economics & Finance · Austrian Economic Chamber	2016 – 2019
<b>Skills</b>	Systems: Python, Java, JavaScript, Go, C/C++	
	Infrastructure: Docker, AWS (EC2, S3, Lambda), Firebase, gRPC/Protobuf, Kafka	
	Data: PostgreSQL, R, JAX, PyTorch, TensorFlow, Keras, Faiss	
	Languages: English (full proficiency), German (native), Farsi (native)	
<b>Experience</b>	<b>Research Assistant (Incoming)</b> , ETH Zurich	07.2024 – 02.2025
	· Via Mobility Program.	
	<b>Research Assistant</b> , University of Waterloo	09.2023 – 02.2024
	· Contributed to a record/replay system for multi-core applications with consistently low overhead.	
	· Containerized C applications with FreeBSD-Jail primitives and automated builds with bash scripts.	
	· Benchmarked vector databases and implemented a custom sentiment classification tool for publications.	
	<b>Trading Software Engineer</b> , Erste Bank	04.2023 – 10.2023
· Built a CRDT-based concurrent database access system for consistent client state and high availability.		
· Significantly reduced network overhead for pricing engine through request batching and brokerless messaging.		
· Identified high-severity data breach vulnerabilities on development machines and proposed patches.		
<b>Research and Teaching Assistant</b> , Vienna University of Technology		02.2021 – 09.2023
	· Researched JVM memory and control flow visualization for profiling and debugging purposes.	
	· Mentored and assessed graduate and undergraduate full-stack software engineering projects. (188.909, 180.456)	
	· Authored advanced DSA course material impacting over 800 students per semester. (186.866)	
	· Instructed Java and Processing in summer courses to groups of 5-10 students each. (185.A91, 180.771, 185.A82)	
· Built custom knowledge and task management system with CI/CD to scale up the research team.		
<b>Research Engineer</b> , FH Technikum		02.2022 – 03.2023
	· Wrote 13 kLoC of Python for a distributed IoT system leveraging MQTT for inter-device communication.	
· Optimized build times by 10x for Docker images by allowing precompiled dependencies for development.		
· Implemented energy usage forecasting models for an adaptive heating system, using time series analysis.		
<b>Intern</b> , Andamp		09.2022 – 10.2022
	· Delivered key usability improvements to the hiring platform built with Next.js and Firebase cloud functions.	
<b>Quantitative Developer</b> , Seavan Trading		03.2020 – 01.2022
	· Built a trading strategy backtesting framework, measuring predictive accuracy and robustness of models.	
	· Optimized execution order in event queue to eliminate congestion in the high-frequency trading system.	
· Audited legacy C codebase and identified critical race conditions that lead to data corruption and loss.		
<b>Volunteering</b>	<b>Organizer</b> , Serlo	06.2018 – 12.2018
	· Gathered local author community for maths education content, reaching around 1.2 million visitors/month.	
	<b>Founder</b> , MatheMatura	10.2017 – 12.2018
	· Launched a non-profit web service streaming mathematics lessons for economically disadvantaged students.	
· Secured government funding by impressing an expert jury, ensuring one year of sustained operations.		
<b>Intern</b> , Maker Austria		08.2017 – 09.2017
	· Reverse engineered CNC machine driver software to enable operation with custom 4-axis milling machine.	
<b>Projects</b>	<a href="#">matchy</a>	Real-time speed dating web app. Pitched at HackZürich. Reached 200+ users in 3 months.
	<a href="#">citeq</a>	Course paper: Large scale sentiment analysis of citations and their correlation with impact.
	<a href="#">vecdb-bench</a>	Course paper: Vector DB benchmarking on scraped and mutated OSS code embeddings.
	<a href="#">query-queen</a>	Postgres query execution plan analysis and optimization leveraging Relational Algebra.
	<a href="#">spring-security</a>	Main contributor to 6.1.2 release. Bugfix for JWT tokens in OAuth 2.0 resource server.
	<a href="#">mailservice</a>	Mail service with DNS, opportunistic encryption, UDP broadcasts for monitoring.
	<a href="#">osue</a>	High performance, RFC-7230 compliant, HTTP client and server written in modern C.
<b>Certificates</b>	TOEFL iBT English Certificate	2022
	License for regulated businesses, Austrian Economic Chamber	2019
	Entrepreneurial Skills Pass (ESP), CSR Europe	2019
<b>Awards</b>	Direct admission to PhD program, University of Waterloo (declined)	2023
	Mathematics International Master's Award of Excellence M-IMAE (\$12,500)	2023
	Graduate Research Studentship GRS (\$23,081)	2023
	Research Scholarship, TU Wien Institute of Logic & Computation (€1,200)	2021