

William Rågstad

Senior Systems Engineer / Software Developer / IT-Security Specialist



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Contact me

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About Me

Started programming at **10** and have been passionate about it ever since. I got my first job when I was just **16** years old. Today I possess expert knowledge in **modern systems development, compilers, theoretical computer science, IT and-cybersecurity**.

Early **university studies** at **ORU** during high school. At **KTH**, I worked as a **teaching assistant** and **research assistant** while still an **undergraduate** student. Even **taught my student peers** *while* taking the same classes myself. I was recognized as an **honor student** in my class at graduation, receiving **commendations from numerous teachers**.

I enjoy spending time with **family and friends**, working out at the **gym**, reading **books** and **research papers**, playing **cello** and **online games**. I'm currently deep-diving into **Programming Language Design**.

I am excellent at **creative problem-solving** and enjoy **challenges** with **learning** opportunities. I aim to be **considerate, kind, attentive, thorough, curious, and open-minded**.

I **can build anything**, from high-level architectural diagrams to robust, pragmatic, and secure implementation, thanks to the broad skills I have acquired in the industry and academia.

Education

Bachelor of Science

Royal Institute of Technology (KTH)

2019 - 2024

Studying **Computer Science** and Engineering at the Department of the School of Electrical Engineering and Computer Science (EECS).

Part-time

Örebro University (ORU)

2017 - 2019

Studied on masters level in Computer Science at **Örebro University** in parallel with **High School**. Courses included: **Algorithms and Data Structures, Software Engineering, Operating Systems, Computer Networks**, and **Mathematics**.

Experience

IT-Specialist

Swedish Defence Agency

2022 - present

IT specialist at a Swedish cyber defense government agency and expert authority under of the **Ministry Department of Defence**.

Software Consultant

Willsoft

2021

I started my own consulting company, **Willsoft**, providing varying IT and software development services to small and medium-sized businesses.

Software Developer

Alex Therapeutics

2021 - 2022

Worked as a Software Developer at **Alex Therapeutics** in the development of a digital KBT therapy platform for mental health. I worked with the main full-stack product (**React** frontend and **Java Spring Boot**) and **developed an internal CMS tool** aiming to simplify in-app content updates and connect language translations.

Research Assistant

Royal Institute of Technology (KTH)

2020 - 2023

Contributed to the **Miking** research project as part of the **core compiler backend team** led by **David Broman** as an **undergraduate student**. I developed the compiler to extend the application domain to include **web browser and native JavaScript execution environments**.

Teaching Assistant

Royal Institute of Technology (KTH)

2019 - 2023

Working as a teaching assistant in: **Ethical Hacking, Programming Paradigms, Programming II, Network Programming, Operating Systems, Interaction Programming, Introduction to Java**,

Private Tutor

Superprof

2019 - 2022

Private tutoring in Programming and Mathematics at **Superprof** for high school and university students in Stockholm.

Full-Stack

Connected Minds

2019

Consulting Full-Stack Developer at **Connected Minds** a Swedish consulting company. I worked on the official website using **React** and **Node.js** and integrated a **CMS** for easy updates. Experience with **UI/UX design, SEO optimization** and **Google Analytics**.

Systems Engineer

Fairyscope

2017

Consultant at **Fairyscope**, a Swedish startup that developed a mobile app and cloud service for sharing information at exhibitions and trade fairs. I developed **backend** systems and **APIs** for generating custom stylized QR codes and managing user data.

Software Developer

Mjukvarufabriken

2016 - 2019

First programming job at **Mjukvarufabriken** as a Junior Developer. I worked on a mobile app in **C#** and **ASP.NET** for **HEAB** to make routine vehicle inspections easier. As well as other software systems engineering-related work.

Skills

Natural Languages

se Swedish



us English



+ 2 more

Programming Languages

 Rust



 C#



 C



 C++



 Python



 Java



 Go



 TypeScript



 JavaScript



 HTML5/CSS3



 PHP



 F#



 Elixir



 OCaml



 Haskell



 Assembly



 Bash/Shell



 PowerShell



+ more

Interest Areas

My main focus is on **Programming Languages**, **Software Development** and **Cybersecurity**. However, I often explore related areas including **Compiler Construction**, **Interaction Nets**, **Category Theory**, **Type Theory**, **Logic**, **Formal Methods**, **Functional Programming**, **Systems Programming**, **Software Architecture**, **Networking**, **Operating Systems**, **Cybersecurity**, **CTFs**, **Cryptography**, **Web Development**, **Game Development** and *much more*.

Highlights

I have participated in various **competitive programming** contests, **hackathons**, **startups**, and **CTF** competitions playing with the **Swedish National Hacking Team** and **RoyalRoppers**, the Swedish elite team. Got into IT-Security at high school, played CTF competitions in the **national team** and with **RoyalRoppers**

- **Creator, Programming Languages:** Designed and implemented interpreters and compilers for **Lento**, **Web X**, and **mini**, among others.
- **Board Member, KTH Stacken Computer Club:** Attended weekly meetups and presented on programming topics.
- **Participant, Swedish National Hacking Team:** Preparation for **ECSC** competition against 20+ countries.
- **Compiler Team, Miking:** A framework for constructing efficient domain-specific languages.
- **Organizer, Undutmaning CTF 2023, 24, 25:** Technical project manager for the website, infrastructure, and challenges.
- **Competitor, DEFCON CTF Qualifier 2024:** In the **NorseCode** team via **RoyalRoppers** and **Kalmarunionen** in **Denmark**.
- **Member, ACM SIGPLAN:** Association for Computing Machinery's Special Interest Group on Programming Languages.
- **CTF Team Member, RoyalRoppers:** Expertise in reverse engineering, web, network, binary exploitation, cryptography, and more.

View my full resume at: williamr.dev/resume.