

JOONA PIIRAINEN

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JOB EXPERIENCE

Reaktor, Helsinki, Finland

05/2021 – -/-

Software Engineering Software Developer

- Worked at multiple client organizations solving difficult problems. Mostly in the domain of web development.
- Was involved in both senior and junior recruitment. Conducted both technical and non-technical interviews.
- Worked with a variety of technologies, such as React, TypeScript, Node.js, Clojure, ClojureScript, PostgreSQL and AWS.
- Took part in the development of the company's internal tools.
- Attended internal and external trainings, such as Certified Scrum Master and Consulting 101.

Puheet.com, Espoo, Finland

10/2020 – 05/2021


Software Engineering Software Developer

- Was responsible for the business critical platform components, such as the main backend system and multiple web frontend applications.
- Worked with a variety of technologies, such as React, Vue, TypeScript, PHP, Node.js, MySQL, Elasticsearch Linux and AWS


SKILLS

- **Program Languages:** **multilingual** (not limited to any specific language), especially experienced in TypeScript, Clojure, Haskell and C#, comfortable with Rust, C, Python, Ocaml and Agda (in random order).
- **Web Frameworks:** Very experienced in React, Next.js, Servant and Express.js, comfortable with dotnet and FastAPI (in random order).
- **Databases:** High degree of experience in PostgreSQL, Datomic and Elasticsearch, comfortable with MySQL and MongoDB (in random order).
- **Functional Programming:** Extensive experience in functional programming. Understanding of both the theory and practical applications of functional programming.
- **Compilers:** Experience with parser generators, parser combinators and layout-sensitive syntax parsing. Familiar with multiple evaluation strategies such as normalization by evaluation (NBE) and abstract machines such as CEK and CESK machines.
- **Type Theory:** Understanding of Martin-Löf type theory and Homotopy Type Theory. Familiar with Idris, Agda and Lean4
- **CI/CD:** Understanding of the importance of CI/CD in software development and quite a bit of experience in using and developing these systems. Familiar with GitLab CI, GitHub Actions.
- **Ways Of Working:** Skilled in Agile methodologies and can help teams thrive and make projects succeed.


PROJECTS AND CONTRIBUTIONS

fp A small, weird and unpractical programming language. 

- fp is a programming language heavily inspired by the language John Backus described in his 1977 Turing Award lecture.
- based on a [paper](#) by John Backus.

v1 Shell scripting in TypeScript. 

- v1 is a tool for writing shell scripts in TypeScript.
- It is powered by [deno](#).

Advent of Code Solutions to [Advent of Code](#). 

- I have participated in [Advent of Code](#) since 2021.
- 2015 [solutions](#). (Clojure)
- 2016 [solutions](#). Solutions in 25 different programming languages.
- 2020 [solutions](#). (Python)
- 2021 [solutions](#). (Haskell and Python)
- 2022 [solutions](#). (Haskell)

MISCELLANEOUS

- I love solving coding problems, I'm quite active in [LeetCode](#) and [CodeWars](#)
- I never studied math in school, but later in life I've become quite interested in it. Lately I've been studying Number Theory and Category Theory.
- I'm a former professional athlete. I know what it takes to be great at something and am willing to put in the work to get there.