18.04.2025
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# Atte Juvonen

SOFTWARE DEVELOPER

## BRIEFLY

*I enjoy crafting software, tinkering, optimizing, and solving hard problems. I have been actively coding since 2014 and I'm especially interested in greenfield projects.*

## EXPERIENCE

2024 –
*(from november)*

**Working as a freelancer & solopreneur at Modern Alchemy (3488658-3)**
*My main source of income is from freelancing, but I will eventually come out of the woodworks with some of my own products as well (figuratively! not actual wood!).*

2023 – 2024
*(8 months)*

**Worked as Senior Software Developer at Aatos Legal Technology**
*I worked as part of a small team on frontend and serverless systems making routine legal documents more accessible to people (B2C web forms). I also spearheaded our generative AI initiatives, launching 2 AI products into production within a few months of development time.*

2022 – 2023
*(1 year 5 months)*

**Worked as Senior Software Developer at New Things Co**
*I worked on frontend and backend systems for a telecommunications client.*

2021 – 2022
*(5 months)*

**Worked as Software Developer at Nitor**
*I worked on frontend, backend, and serverless systems in 2 client projects.*

2017 – 2021
*(4 years 3 months)*

**Worked as Software Developer at Futurice**
*I worked on various web development projects with a data science angle (e.g. recommender systems, classification tasks, natural language processing). My role encompassed research, modelling, databases, cloud, backend & frontend development.*

2015 – 2018
*(part time)*

**Worked as Instructor at University of Helsinki**
*I worked on several iterations of the course "Data structures and Algorithms".*

2015
*(part time)*

**Sold my student project**
*During my first semester in University, I had a friend who played floorball who complained to me about suboptimal schedules in his floorball tournaments. I figured I could solve this problem by developing a constraint optimization algorithm tailored for this task. I decided to cold call the Finnish Floorball Federation and pitched them my idea, sold it and delivered the project as a solo developer. My software is used in production (as of 2020) and I've delivered several updates over the years.*

## EDUCATION

2014–2019

**Completed Master's Degree in Computer Science at University of Helsinki**
*I specialized in track "Algorithms, Data Analytics and Machine Learning".*
*I wrote my thesis on the security of voting schemes: https://attejuvonen.fi/thesis/.*
*I also completed my bachelor's degree in Computer Science.*

## LANGUAGES

Finnish ✦ Native
English ✦ Fluent

## TECHNOLOGIES

| | |
|---|---|
| Frontend | ✦ React, Gatsby, NextJS, Svelte, AlpineJS, JavaScript, TypeScript |
| Backend | ✦ Python, Flask, JavaScript, TypeScript, Node, Java, Spring, Scala, Play |
| Databases | ✦ PostgreSQL, SQLite, DynamoDB, Redis, ElasticSearch |
| Cloud | ✦ AWS, Azure, Vultr, Fly.io, Render, Heroku |
| Testing | ✦ Mocha, Cypress, JUnit, TestCafe |
| Data science | ✦ Python, Pandas, scikit-learn, Jupyter, R, C/C++ |
| Generative AI | ✦ Stable Diffusion, LLaMA, ChatGPT and other OpenAI products |
| API | ✦ REST, GraphQL |
| CMS | ✦ Contentful, Naviga (integrations + custom plugin development) |
| Other | ✦ Docker, Git, Scrum |

## CERTIFICATES

2023 ✦ Splended – Product Management for Developers
2021 ✦ edX Verified Certificate for Introduction to Web Accessibility
2021 ✦ Microsoft Certified Azure AI Fundamentals
2021 ✦ Microsoft Certified Azure Data Fundamentals
2021 ✦ Microsoft Certified Azure Fundamentals
2021 ✦ AWS Certified Machine Learning – Specialty
2021 ✦ AWS Certified Developer – Associate
2021 ✦ AWS Certified Cloud Practitioner
2021 ✦ AWS Certified Database – Specialty
2021 ✦ AWS Certified Security – Specialty
2021 ✦ AWS Certified Solutions Architect – Associate
2021 ✦ AWS SysOps Administrator – Associate
2021 ✦ Scrum.org Professional Scrum Master I
2021 ✦ Scrum.org Professional Scrum Product Owner I
2016 ✦ Dataquest.io Data Visualization (2016)

## CODE SAMPLES

Although my work projects are mostly under NDA, I have published many personal projects on GitHub: https://github.com/baobabKoodaa. Some of these I've created for my own needs, including a personal expense tracker, a password manager, and backup software. I've also created some Gatsby starters that other people have found useful.

If you're only going to look at a single project, I recommend gatsby-starter-photo-book. It is documented with explanations and a link to live demo so you can click around in your browser. This starter demonstrates my interest and ability in polishing a product, especially with regards to user experience and performance.

## REFERENCE

Words from my direct supervisor at Futurice:

*During his time at Futurice, Atte has had a big impact on the client projects and teams that he has worked with, solving important problems and contributing beyond the expectations. Atte has shown deep technical knowledge across the technologies he has worked with. He has actively developed his skills and shown the ability to quickly learn new. Atte is proactive in finding solutions and can manage complex projects. He has excellent communication skills and can explain complex technical details even to non-technical stakeholders.*

Antti Vuorela
Tech Principal, Digital Platforms, Futurice

**A CASE STUDY**

## The problem

When I was working at Futurice in 2018, one of our clients – a large media corporation – was spending unnecessary resources on a manual process that was delivering subpar results. Basically, whenever a journalist would write an article, they would manually tag the article with suitable tags, such as ”nature” or ”infectious diseases”. It was difficult for journalists to think of all the proper tags, because there were thousands of them to choose from. As a result, articles were insufficiently tagged and many similar, overlapping tags had been created. The client asked us to create software which would recommend suitable tags, potentially saving time from journalists and improving the quality of tags.

## The solution

We created a software solution which recommends tags to journalists based on article content, utilizing both machine learning and ad hoc -methods. I worked as a pair with another colleague to create the proof-of-concept, which was integrated to production in 2018. As part of the integrations we also orchestrated a major cleanup operation for the pre-existing articles and tags.

Later, in 2020, I returned to the project. This time I was the only one working on it. Our solution had been in use for one newspaper, and the client wanted to expand its use to more than a dozen different newspapers. In addition, the client was moving from one content management system to another, requiring various integrations and a new frontend for our solution.

This project had very little steering from the client. I was the driving force behind the project, both figuring out what needed to be done, and also doing the bulk of the work myself on all fronts: model development, backend development, frontend development, integrations to other systems, and a large migration. I don’t mean to take all the credit – I collaborated with the larger team on integrations and my colleagues made significant contributions. There were also times when I got stuck and asked for help, particularly when I had to make changes to legacy codebases that I was unfamiliar with.

In the end we created a fantastic product which is used every day by hundreds of journalists, affecting millions of readers in a tiny way. I’m proud of the state of the product as I left it: clean, maintainable codebase, architected in a robust way that doesn’t need an on-call team to put out fires, performantly running with minimal expenses, producing high-quality tag recommendations with a smooth user experience.

Technologies used: Python, Numpy, Pandas, scikit-learn, Flask, PostgreSQL, AWS, JavaScript, React.