

BENJAMIN HODGSON

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EXPERIENCE

Stack Overflow

Staff Software Developer 2021–2022

Senior Software Developer 2018–2021

Software Developer 2016–2018

Stack Overflow is the world's largest community of developers and repository of programming knowledge.

- I was the technical lead on Stack Overflow's Reach & Relevance team, working primarily on Stack Overflow Talent, a developer hiring platform.
- I served as the lead developer on a number of large and challenging projects, involving complex implementation work, intra- and inter-team project management, and collaboration with designers, product managers, and data scientists. My projects included:
 - A major redesign of Stack Overflow's Jobs product, resulting in a 35% increase in job views and a 9% increase in job applications.
 - Long-term development of Talent's candidate management tools, such as Recommended Candidates, a feature I devised and pitched.
 - New reporting tools to give employers insight into the performance of their hiring efforts.
 - Sunsetting the product, when it eventually reached the end of its life.
- I'm a consistent advocate for performance, scalability, maintenance, and resolving technical debt.
 - I personally led the engineering department in transitioning our front-end codebase to TypeScript and ES Modules. I rapidly trained myself on Webpack, modernised Stack Overflow's build pipeline and localisation tools, and made substantial contributions to upstream open source libraries.
 - I designed and implemented major architectural improvements to Stack Overflow's job search algorithm, including the implementation of our advanced search query language. My work resulted in a 100-fold performance improvement to the core algorithm, allowing the product to scale to millions of jobs and enabling valuable syndication partnerships with other job boards.
 - I designed, implemented and documented a number of large-scale simplifications to Talent's 13-year-old data model.
- As my team's tech lead, I was involved in every project the team took on, from inception and design through to code review and delivery. I worked especially closely with product managers, designers, and engineering managers to help manage the team's work stream and identify potential issues in advance. I was also the point of contact for other teams and departments when coordinating projects.
- I'm a dedicated mentor and teacher of junior teammates. I mentored a new developer in her first engineering job, providing guidance along the path to becoming a productive developer.
- I conducted hundreds of interviews for a variety of roles across the Product & Engineering department. Working with management and HR, I devised and documented several interview questions which remain in use as standard by all of our interviewers.
- I contributed a net negative number of lines to Stack Overflow's codebase.

Huddle

Software Developer

2014–2015

Graduate Software Developer

2013–2014

Huddle is a secure collaboration and filesharing system for enterprise and government.

- Working on a skeleton team of three, I helped deliver a strategic technical project, extracting Huddle's key file-sharing component from the surrounding legacy application into a micro-service. This enabled us to embark on a full-scale redesign of the product's data model, resulting in a 10-fold performance gain over two months.
- During 20% time, I designed and implemented several innovative features for Huddle, including a project entitled Annotations which won the prize for best Hackathon pitch.
- I contributed a net negative number of lines to Huddle's codebase.

University of Oxford Physics Department

Research Software Developer

Summer 2012

National Physical Laboratory

Research Assistant

2009–2012

EXTRA-CURRICULAR

I'm the author of several high-quality open source libraries, available on my GitHub profile (<https://github.com/benjamin-hodgson>):

- [Pidgin](#), a functional parsing library with a focus on performance.
- [Sawmill](#), a library of abstract tools for working with trees.
- [Eighty](#), an HTML generation library.

I've also contributed to third-party open source projects, including performance and documentation fixes for the .NET Framework's JIT compiler and base class libraries.

I write about technical matters on my personal website, <https://www.benjamin.pizza>. Highlights include:

- [Write You A Prolog](#), a four-part programming language implementation tutorial.
- [Recursion Without Recursion](#), detailing Sawmill's API and design.
- [Rewriting IRewritable](#), detailing Sawmill's internal implementation.

I'm very interested in programming languages and have written a number of compilers and code generators, both professionally and as a hobby. I also love to learn programming languages, especially those which make you think differently about software. I've written personal projects using Haskell, Rust, Scala, Prolog, Agda, and Coq.

I'm a high-reputation Stack Overflow user with over 400 posts, mainly in the Haskell tag.

I love cooking and mixology. I play the piano to a high standard.

EDUCATION

MPhys Physics, St. Catherine's College, University of Oxford

2009–2013

Tiffin Boys' School, Kingston Upon Thames

2002–2009

References available upon request.