

# BENJAMIN HODGSON

<https://www.benjamin.pizza>

## EXPERIENCE

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### Stack Overflow

Staff Software Developer

2021–

Senior Software Developer

2018–2021

Software Developer

2016–2018

*Stack Overflow is the world's largest repository of programming knowledge and community of software developers. I am the technical lead on Stack Overflow's Reach & Relevance team, working primarily on Stack Overflow Talent, a developer hiring platform.*

- I've 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 have 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.
  - Lately, I have been working on our plans to sunset parts of Stack Overflow's hiring products.
- I'm a consistent advocate for performance, scalability, maintenance, and resolving technical debt.
  - I personally led the engineering department in transitioning our entire front-end codebase to TypeScript and ES Modules. I rapidly trained myself on Webpack, designed and communicated a plan to transition the codebase, modernised Stack Overflow's JavaScript 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'm involved in every project the team takes on, from inception and design through to code review and delivery. I work especially closely with product managers, designers, and engineering managers to help manage the team's work stream and identify potential issues in advance. I am also the point of contact for other teams and departments when coordinating cross-team projects.
- I'm a dedicated mentor and teacher of junior teammates. I mentored a developer apprentice in her first engineering job, providing guidance — both technical and pastoral — along the path to becoming a productive and skilled developer.
- I've 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.

### Huddle

Software Developer

2014–2015

Graduate Software Developer

2013–2014

*Huddle is a secure collaboration and flessharing 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

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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 in the .NET Framework itself.

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.

## EDUCATION

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

2009–2013

Tiffin Boys’ School, Kingston Upon Thames

2002–2009

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References available upon request.