BENJAMIN HODGSON

https://www.benjamin.pizza

EXPERIENCE

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 Type-Script 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, implemented, and delivered major architectural improvements to Stack Overflow's job search algorithm. 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 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 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 a high-reputation Stack Overflow user with over 400 posts, mainly in the Haskell tag.

I 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, Coq, and Idris.

EDUCATION

MPhys Physics, St. Catherine's College, University of Oxford   *2009–2013*

Tiffin Boys' School, Kingston Upon Thames   *2002–2009*

References available upon request.