BENJAMIN HODGSON

https://www.benjamin.pizza

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.