David Wood

Software Engineer · Edinburgh, Scotland · hello@davidtw.co · https://davidtw.co · @davidtwco

Open Source

Rust Foundation
Board Member   Oct 2025 – Present

Representing the Rust Project as a Project Director on the Rust Foundation's Board.

Rust Programming Language
Compiler Team Co-Lead   Aug 2023 – Present

In collaboration with my compiler team co-lead, I'm responsible for representing the Rust compiler team; owning the compiler team's decisions; making unilateral approval for trivial or urgent issues; driving the team's weekly meetings; communicating with other members of Rust leadership; authoring communication on behalf of the team; and supporting compiler team members in their contributions.

Since becoming co-lead, I have created a roadmap for my term as co-lead based on team member feedback , landed an RFC to restructure the compiler team , improved review queue capacity, and written about the team's ongoing work , review queue , and the project's structure .

Rust Programming Language
Compiler Team Maintainer   Oct 2017 – Present

As member of the Rust compiler team, I am responsible for the implementation and maintenance of the Rust compiler, which involves having merge privileges; being assigned patches to review; fixing high-priority bugs; and reviewing backports, major change proposals and compiler RFCs.

I regularly contribute bug fixes, diagnostic improvements and refactorings; as well as lead or contribute to engineering efforts to implement new features in the Rust compiler. Since starting to contribute to Rust, I have been involved in various working groups, including: async/await, diagnostics, debuginfo, meta, polymorphization and non-lexical lifetimes.

Work Experience

Arm Holdings plc   Edinburgh, Scotland
Staff Software Engineer, Rust Team Lead   September 2024 – Present

Within the Rust team at Arm, we contribute improved Arm platform support to the upstream Rust project and ecosystem, prioritising requests from our partners with Rust workloads; and perform internal research on the advantages and impact of potential and upcoming architecture features on Rust workloads. As lead of the team, I am responsible for:

- mentoring and line management of team members, helping them achieve their goals and succeed in the team and company

- the team's relationship with the upstream Rust project, building community consensus around our objectives and owning Arm's commitments to upstream

- representing Arm within the Rust community at conferences and upstream project events

- planning the team's work, establishing and communicating our priorities and roadmap to leadership

- ensuring the team is high-performing and achieving its objectives

- sharing Rust knowledge and expertise internally

- my own engineering contributions to our ongoing projects, such as extending the language to be able to support the Arm scalable vector extension

Huawei Technologies Research & Development UK Ltd.   Edinburgh, Scotland
Senior Software Engineer A, Programming Languages Lab   November 2022 – August 2024

Within the Central Software Institute of Huawei R&D, I leveraged my Rust experience to accelerate and guarantee Rust's successful adoption, involving:

- contributions to the upstream Rust compiler, prioritising features and bugs which impacted Huawei's business units

- directly working with internal customers to recognise Rust opportunities, advising and assisting teams adopting Rust, and identifying and prioritizing requirements for upstream contributions

- supporting HQ colleagues in maintaining the internal toolchain

- knowledge sharing of Rust compiler internals

- participation in Huawei's Technical Management Committee to define internal coding standards for Rust

- internally representing the Edinburgh Research Centre within Huawei by promoting my work in company publications and presenting to leadership from other parts of the organisation

- externally representing Huawei by speaking at international conferences and attending as a sponsor

I was awarded Huawei's "President Award of the 2012 Laboratories", "President's Award of the European Academy", "Gold Team Award", "Innovation Spark Award", and "Future Star" awards.

Huawei Technologies Research & Development UK Ltd.   Edinburgh, Scotland
Senior Software Engineer B, Programming Languages Lab   Aug 2021 – Nov 2022

Codeplay Software Ltd.   Edinburgh, Scotland
Senior Software Engineer, Infrastructure   Nov 2020 – Aug 2021

I was the primary maintainer of Codeplay's continuous integration infrastructure and led the effort to rebuild the core infrastructure with NixOps to improve reproducibility.

In addition, I worked as a compiler engineer on SYCL support for NVIDIA GPUs which was contributed to Intel's DPC++. I implemented driver support in Clang for the `nvptx64-nvidia-nvcl-sycldevice` target, target-specific passes in LLVM, builtins in libclc, and various bug fixes to LLVM, Clang and the LLVM–SPIRV translator.

Codeplay Software Ltd.   Edinburgh, Scotland
Software Engineer, Infrastructure   Sep 2017 – Nov 2020

Codeplay Software Ltd.   Edinburgh, Scotland
Intern Build Engineer   May 2017 – Sep 2017

I rebuilt the Codeplay's continuous integration infrastructure during my internship - introducing automated re-provisioning of build nodes and improving configuration management, reducing the turn-around time of changes requested by engineering teams and downtime which impacted engineering productivity.

Earlier experience available on LinkedIn
Jun 2014 – Jun 2016, Apr 2015 – Feb 2017, Sep 2018 – Nov 2018

Education

University of Glasgow   Glasgow, Scotland
MSci Software Engineering with Work Placement, Honours of the First Class   Sep 2015 – Jun 2020

I graduated with a GPA of 20.0 (out of a maximum 22.0) and completed my MSci project on "Polymorphisation" , a code-size optimisation in the Rust compiler to reduce unnecessary monomorphisation during code generation. In my first year, I was awarded "Best Computing Science Student Intending Single Honours" and in my final year, "Most Outstanding Project in MSci SE WP".

Glasgow Caledonian University   Glasgow, Scotland
Nuffield Foundation Placement   May 2014 – Jul 2024

Awards

Individual Category - Runner Up   House of Commons, London, UK
OpenUK Awards 2025   Dec 2025

Programming Languages Software Award   Copenhagen, Denmark
ACM SIGPLAN   Jun 2024

Conference Speaking

QCon   Shanghai, China
Split DWARF in rustc   Nov 2022