delan@azabani.com

3359 F6FA AED9 B627 E700 F58E FC18 AA5D 1313 1313

2020 to now	**Web platform engineer** at Igalia
	Implemented web platform features in Chromium (C++) and Servo (Rust), contributed to web platform specifications via the CSS Working Group, spoke at conferences including BlinkOn and the Web Engines Hackfest, and actively built a healthy worker's cooperative.
2020	**Software developer** at Automattic
	Developed and supported VaultPress (PHP), a legacy backup and malware scanning service for WordPress, and Rewind (TypeScript), its successor, both involving remote access components that build a reliable runtime out of unreliable parts (customer sites).
2020	**Intern** at Igalia
	Contributed to three major browser engines (C++) and the Web Platform Tests (Python, JavaScript, CSS, HTML), a suite of tests that are an integral part of the web platform's interoperability story.
2019	**Infrastructure engineer** at Canva
	Designed a system that provisions and manages ephemeral Amazon EC2 instances, for a wide range of use cases from bastions (remote access to servers and databases) to more intensive tasks like database migrations and machine learning.
2017 to 2019	**Software developer** at Atlassian
	Release manager and CI maintainer for the self-hosted version of Jira Service Desk since July 2018, cutting build times on the project's main repository by 30%.
2014 to 2016	**Casual academic** at Curtin University
	Tutored classes for Unix and C programming, operating systems, and first and second year software engineering, marked assignments and tests, wrote assessment revision material, and delivered it to more than a hundred students in a semester.

Conference talks

2023   **Servo 2023** at Web Engines Hackfest 2023

Servo is a web engine written in Rust. After parts of it were integrated into Mozilla Firefox, the project became independent but dormant in 2020. This year, with renewed interest in using it as a standalone embeddable engine, Servo is returning to active development.

This talk will go over the work we've done so far and our plans for the rest of 2023, particularly in Servo's layout system, as well as how you can help.

2022   **Faster style and paint for CSS highlights** at BlinkOn 17

CSS highlight pseudos extend the familiar ::selection feature into a far more powerful system that coherently integrates user selections, spelling and grammar errors, author highlights, and more.

Now that Blink's implementation is nearing completion, this talk will explain how we were able to support that powerful system reasonably performantly, and without regressing existing content.

2022   **Update on CSS highlight pseudos** at BlinkOn 16

A quick progress update on Igalia's work implementing the new highlight pseudo system in Chromium.

2021   **CSS highlight pseudos** at BlinkOn 15

Overview of the new spec for ::selection and other highlights, the status of their implementation in Chromium, the challenges we still face, and what's next.

Education

2013 to 2016   **Bachelor of Science (Computer Science)**
Curtin University (84.73 percent average)

2008 to 2012   **Western Australian Certificate of Education**
Willetton Senior High School (98.85 percentile)

Awards and achievements

2015	ACS Foundation ICT Scholarship (Diamond Cyber)
2014	Commendation from Curtin Science (2014 semester 2)
2014	Curtin Vice-Chancellor's List (2013 semester 2 — top 1%)
2013	Commendation from Curtin Science (2013 semester 2)
2013	Commendation from Curtin Computing (2013 semester 1)
2012	Curtin Science Excellence Scholarship (96 percentile)
2012	Distinction in WACE Computer Science (second best in WA)
2011 to 2012	First prize in the MAWA Have Sum Fun competition (twice)
2011 to 2012	Top student in WACE Computer Science (four times)
2009 to 2012	Bronze in the Australian Informatics Olympiad (four times)
2009 to 2010	Distinction in the Australian Mathematics Competition (twice)
2008	High distinction in the Australian Mathematics Competition
2007	Dux of Rostrata Primary School

Community involvement

2016   **President** of ComSSA

2013 to 2016   **Committee member** at ComSSA
Organised events, operated services, formalised processes, maintained correspondence, and liaised with sponsors and staff, for the computer science society at Curtin University. ComSSA runs social events and industry conventions, provides academic assistance, and represents computing, networking, and security students.

2014   **Mentor** at CoderDojo WA
Trained and supported school students aged 7–17 who are learning programming skills, with the use of Scratch, Python, Ruby, and more, at the weekly CoderDojo workshops at Curtin University.

2014   **Engineering outreach volunteer** at Curtin University
Demonstrated introductory programming skills using the Raspberry Pi computer, to eleven groups of high school students from years nine to twelve, with members of Engineers Without Borders Australia.

Detailed history

2020 to now   **Web platform engineer** at Igalia

Implemented web platform features in Chromium (C++) and Servo (Rust), contributed to web platform specifications via the CSS Working Group, spoke at conferences including BlinkOn and the Web Engines Hackfest, and actively built a healthy worker's cooperative.

2020   **Software developer** at Automattic

Developed and supported VaultPress (PHP), a legacy backup and malware scanning service for WordPress, and Rewind (TypeScript), its successor, both involving remote access components that build a reliable runtime out of unreliable parts (customer sites).

Wrote a paginating MySQL dumper to copy tables from customer sites where mysqldump(1) and replication are unavailable. Migrated the Rewind monorepo ($\sim$50 kloc across three packages) from npm to yarn, enabling the team to publish a shared library package.

Caught and investigated several data integrity bugs in the complex interactions between text and binary data encodings. Revamped backup filesystem handling to safely work with non-Unicode paths.

Built robust error handling and progress feedback throughout the systems that accept and handle SSH/FTP credentials, including the customer-facing frontend (React, Redux). These systems were previously very opaque, and the complexity of their failure modes accounted for nearly half the support expenditure on our services.

2020   **Intern** at Igalia

Contributed to three major browser engines (C++) and the Web Platform Tests (Python, JavaScript, CSS, HTML), a suite of tests that are an integral part of the web platform's interoperability story.

Helped refactor string handling in Blink (Chrome's engine), contributed my regression tests for that work to WPT, and helped implement MathML Core in WebKit (Safari) and Gecko (Firefox).

2019   **Infrastructure engineer** at Canva

Designed a system that provisions and manages ephemeral Amazon EC2 instances, for a wide range of use cases from bastions (remote access to servers and databases) to more intensive tasks like database migrations and machine learning.

Technologies used include Terraform for cloud orchestration, Buildkite for continuous deployment, Docker and Nix for reproducible environments, and Lambda with Python for serverless computing.

2017 to 2019	**Software developer** at Atlassian

Release manager and CI maintainer for the self-hosted version of Jira Service Desk since July 2018, cutting build times on the project's main repository by 30%.

Wrote and maintained the bulk of our documentation for our new starters and our builds and releases. Wrote an incremental build system for Maven using Python and POSIX shell that tracks successful build inputs with its own Git repository.

Gained a wide range of full-stack experience, using Java and Scala with OSGi and Spring on the backend, ECMAScript and Backbone on the frontend, Groovy and Bamboo for continuous integration, and a heterogeneous persistence layer that supports five database systems through OFBiz, Active Objects, and Querydsl.

2015	**Research intern** at Pawsey Supercomputing Centre

Developed tools to allow content creators to easily arrange 3D scenes with models of the recently discovered wrecks of HMAS Sydney (II) and HSK Kormoran, animate these scenes, and render them on the Magnus supercomputer near Curtin University.

2015	**Technical operator** at Diamond Cyber

Improved the security of the organisation's public website, investigated secure communications platforms for penetration testing, and built a workstation for training new employees.

2014	**Junior web developer** at Aspermont Limited

Supported and maintained a legacy content management system that uses ASP, VBScript, and Microsoft SQL Server, and aided with the migration of applications to Amazon Web Services and ASP.NET.

2014 to 2016	**Casual academic** at Curtin University

Tutored classes for Unix and C programming, operating systems, and first and second year software engineering, marked assignments and tests, wrote assessment revision material, and delivered it to more than a hundred students in a semester.

2009 to 2010	**Software developer** at Willetton Senior High School

Built and maintained web applications using PHP and MySQL, to enable staff to allocate classrooms, buses, and other facilities, and to allow English students to review texts that they have studied.

References

Steve Seear (details on request) — Department lead and engineer for VaultPress/Rewind at Automattic

William Viana (details on request) — Backup team lead and engineer for VaultPress/Rewind at Automattic

+61 404 889 007   **Seb Welsh** ⟨seb@canva.com⟩ — Security team lead at Canva

+61 449 155 603   **Niall O'Riordan** ⟨noriordan@atlassian.com⟩ — development manager for Server products and interim team lead at Atlassian

+61 419 043 926   **Nigel Dutton** — computer science teacher, systems administrator, and manager of operations at Willetton Senior High School