PHILIP ROWLANDS

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SOFTWARE ENGINEER

An experienced software engineer with 8+ years full-stack work in the telecommunications industry. Delivered several contact centre products with Java and JavaScript, with a focus on web chat. In recent years, focussed on JavaScript development. Looking to stay at an individual contributor level, with a view to shifting into web accessibility.

KEY SKILLS

JavaScript	Front-end Web Development	NodeJS
Technical Writing	Web Accessibility	Java
Source Control	Build Management	Vue

EMPLOYMENT HISTORY AND EXPERIENCE

Software Engineer III at Avaya   **July 2021 – August 2023**

Worked on an Azure-based social media processor that is heavily based around NodeJS microservices, with a Ruby backend and a pair of React-based administration portals since October 2021. Key deliverables include:

- Implemented Datadog integration for several NodeJS microservices, working with another developer to provide a common wrapping library and documentation for our metrics. This formed a base for future refinements.
- Refactored the portals to remove or hide unused elements and fix numerous issues such as missing input validation or a missing Content-Security-Policy header to hinder XSS (Cross-Site-Scripting).
- Analysed results of Qualys and OWASP ZAP scans of various services to check for vulnerabilities in Docker images and web applications and fixed any issues that were found.
- Updated and significantly fixed/refactored a Python SNMP monitoring service into supporting SNMPv3. Delivered a working service despite the lack of existing documentation or any prior Python experience, allowing a customer site to monitor their system.
- Researched the Google Play APIs and produced a proof-of-concept NodeJS microservice to allow contact centres to respond to reviews of Android apps.

Software Engineer II at Avaya   **February 2020 – July 2021**

Worked on an omnichannel contact centre solution (Avaya Oceana), deployed to an in-house platform. Key contributions include:

- Researched and implemented language detection with Apache Tika and other libraries, allowing contact centre agents to match their desktop language and page direction with customers.
- Expanded a Java-based WebSocket API for web chat, allowing customers to converse with a live or automated agent. This later became the basis for 3 additional channels (SMS, social media messaging, and asynchronous messaging).
- Developed a secondary, non-customer-focussed web chat client in vanilla JavaScript for testing the asynchronous messaging and web chat APIs, speeding up development.

Software Engineer I at Avaya   **January 2016 – January 2020**
- Wrote significant chunks of the official reference frontend web chat client for Avaya Oceana, porting it from a previous project. Managed the manual end-of-sprint builds for over 2 years.
- Implemented JDBC encryption between Oceana and an InterSystems Caché database, requiring working around a platform incompatibility with Apache DBCP2.
- Delivered the user interface for a database visualisation application as part of a drive to convert this from an internal debugging application to a customer-facing product. Created internal wiki pages on how to use the application which subsequently became the official user manual for it.

Junior Software Engineer at Avaya   **January 2015 – December 2015**
- Ported a legacy PHP web chat client to JavaScript with WebSockets.

TECHNICAL SKILLS
- Java:
  - 6-7 years of working on Java 8 services, with some experience of Spring MVC, Spring Boot, and various Apache libraries (DBCP2, Tika).
- JavaScript/frontend web development:
  - 4-5 years of being the main developer on a reference customer-facing web chat client and then other user interfaces while at Avaya. Vanilla JavaScript, with some experience with npm, Jest, Mocha, JSHint, ESLint, Grunt, Gulp and webpack.
  - 2 years commercial experience with TypeScript & React while working at Avaya.
  - Self-taught in Vue while creating a secondary site for an ongoing scifi/fantasy series. Basic familiarity with Alpine.js, Angular, pnpm, yarn.
- Python: approximately 6 months upgrading and fixing a broken SNMP monitoring service, with occasional use for automation work. Basic work with Flask.
- DevOps:
  - Highly familiar with source control (Git, Bitbucket).
  - Experience with configuring Bamboo jobs, Jenkins pipelines and GitHub Actions, allowing services or repositories to be automatically built.
  - Exposure to Kubernetes, Helm, Azure and Docker.
- Network security & administration: exposure to Qualys scanning, OWASP ZAP scanning, OpenSSL and SNMP. Some experience with Red Hat, Linux Mint and Ubuntu.

EDUCATION
2.1 Honours M.Sc. in Software Design & Development at National University of Ireland, Galway.
2.1 Honours B.Sc. in Experimental Physics at National University of Ireland, Galway.

HOBBIES AND INTERESTS
- Writing science fiction/fantasy. Five self-published collections of short stories on my own site and on Google Play.
- Digital art.