



2 December 2022

To Whom It May Concern -

This letter is to confirm Michal Bultrowicz was engaged as a Senior Backend Engineer at Nira between 19 January and 31 December 2022.

At Nira, Michal reported directly to me and was managed by me on a day-to-day basis. Nira is a 100% remote organization, and I was based in Brisbane, Australia; while Michal was in the Katowice area, Poland. Our interactions were all remote: via video conferencing, online chat, email and via workflows in software development and project management systems.

At Nira, Michal's duties included:

- Technical leadership of the actions infrastructure-service, which is used to execute policy-driven and on-demand changes to document permissions via Google Workspace APIs
- Substantial end-to-end changes across actions manager, API and worker components, written in Python, bundled in Docker via Infrastructure-as-Code
- Introduced a new job-task queuing infrastructure based on MSK (Kafka), that replaced the previous solution based on AWS SQS.
- Comprehensive overhaul of Elasticsearch index queries as relating to payload validation
- Conducted scaling experiments to prove actions performance >10M documents
- Creating a comprehensive test suite for all actions infrastructure-services components
- Analysis and solution design for a variety of new feature bundles which had actions dependencies, working from product requirements to produce engineering plans and effort/complexity estimates, which flowed through into implementation projects
- Participating in engineering projects and squads with specific focus on actions/backend development within a globally distributed team of up to 25 engineers
- Review of other engineer's code as a part of quality assurance and release processes, both for actions and wider backend ecosystem
- Revising and extending Github Actions based CI/CD pipelines
- Contributing technical analysis in the context of customer and operational support

Michal's engagement was discontinued owing to a scale down of the engineering team at Nira. I have no hesitation in recommending Michal to a future employer. If you have any questions, please contact me as below.

Baden Hughes
Director of Engineering

baden@nira.com or baden.hughes@gmail.com

+1 408 512 1416 or +61 418 466 107