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April 28, 2024

To: Jaclyn Snyder, Senior Recruiter

I found the DevOps Lead position from a post on Mastodon¹. With **more than 10 years in interdisciplinary open-source scientific software development** with a strong focus on **collaborative DevOps tools and practices**, I am an ideal candidate for this position. I was a software engineer for The Carpentries (a non-profit in education with a large and distributed volunteer community) where I developed *The Carpentries Workbench*, **an automated, secure, and platform-independent deployment system** for their community-maintained lesson **infrastructure that has been in continuous operation since 2021**². Having developed free and open tools throughout my career, **I am particularly excited for a chance to work in public service technology**.

DevOps experience and operational excellence: I have been collaboratively developing open source software on GitHub **since 2013** in the disciplines of population genetics, epidemiology, and education. Most recently, I was the lead for *The Carpentries Workbench*, a suite of R packages and **CI/CD workflows** designed to build, deploy, and audit reproducible data science lessons in a **secure and platform independent** manner. This was a ground-up redesign of the lesson infrastructure to **focus on the needs and working practices of our diverse community of >2000 volunteers**, allowing them to focus on the content of their lesson and not the tooling.

DevOps knowledge of tools and practices: I operate under a **growth mindset** and am **always learning**. The work I did in academia (2012–2020) taught me many of the DevOps practices I have now. As a grad worker, I developed **project management skills** creating user-friendly scientific software³ on **Linux** with **Git** and **CI** and performed complex simulation analyses using **automation with Python and BASH**. In my postdoctoral work, I used **Docker** for automated reproducible research⁴, and was an early adopter of **GitHub Actions** for CI/CD to manage deployments with limited resources. My work at The Carpentries (2020–2023) gave me the **learning opportunity to scale my DevOps skills** by allowing me to work with **monitoring frameworks and deployments on AWS** and **securely managing personally identifiable information**.

Leadership and Mentoring: I have **>5 years of leadership experience** through my work in the non-profit space in the R4Epi project (2018–2019) and The Carpentries (2020–2023). At R4Epi, I **coordinated testing, development, and deployment** of software for field epidemiologists with limited computing resources. My role in The Carpentries started with **vendor and tool management** for their infrastructure, including **hiring and evaluating contractors** for accessible UI design work. I put my **strong mentorship skills** to work in 2023 when I **trained 3 novice colleagues in DevOps, automation, and maintenance** of our infrastructure.

Communication skills: I am the co-founder of an award-winning **science communication podcast** where I coached graduate workers to **explain complex technical ideas** to a general audience (2012–2016). As a certified Carpentries Instructor Trainer, I have been **teaching people to work with data and code since 2014** using **evidence-based active learning principles**. And finally, much of the success for my projects lies with my ability to **write clear and concise documentation tailored to the audience**.

The experience I have gained in over a decade has given me the experience needed to be a successful DevOps Leader. I am excited for the opportunity to work with a team that is passionate about making a difference through technology and particularly excited for the chance to work in a role that will improve the digital experience for Portlanders. I would like to thank the recruitment team for consideration of my application.

Sincerely,

Zhian N. Kamvar, PhD

(Attached: Resumé, references)

¹<https://hachyderm.io/@skinnylatte/112288252467110280>

² *The Carpentries Workbench*: <https://carpentries.github.io/workbench>

³ poppr R package (Kamvar et al., 2014) doi: [10.7717/peerj.281](https://doi.org/10.7717/peerj.281) featured in **>2000 peer-reviewed publications**

⁴ Automated Research using Docker + CircleCI (Kamvar et al., 2017) doi: [10.7717/peerj.4152](https://doi.org/10.7717/peerj.4152)