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| **Gabriel J. Selzer**  Software EngineeR |
| (608) 509-5506 | [gabrieljamesselzer@gmail.com](mailto:gabrieljamesselzer@gmail.com) | [https://gselzer.github.io](https://gselzer.github.io/) |
| **Education** |
| **University of Wisconsin - Madison**  M.S. Computer Science (4.0 GPA) **expected May 2024**  B.S. Computer Science & Electrical Engineering, Certificate in German (3.97 GPA) **December 2021** |
| **Professional Experience & Projects** |
| **Laboratory for Optical and Computational Instrumentation (LOCI) August 2017 – Present**  Graduate Research Assistant ← Research Intern ← Student Programmer  *Worked as a key member of the LOCI software team responsible for ImageJ2 and Fiji, open-source image processing applications written in Java with thousands of citations each year.*  **napari-imagej** – Lead Developer [*https://github.com/imagej/napari-imagej*](https://github.com/imagej/napari-imagej)  Enabled graphical interoperability between ImageJ and Python routines within napari, a data viewer built on Python.   * Implemented transparent, on-demand conversions between ImageJ data structures and NumPy/Python equals. * Engineered asynchronous ImageJ2 initialization to avoid blocking napari’s UI.   **Impact: 182 installs – 20 GitHub stars – Communications paper published in Nature Methods, September 2023**  **SciJava 3 –** Lead Developer [*https://github.com/scijava/scijava*](https://github.com/scijava/scijava)  Building an extensible, cross-language plugin framework in Java 11 as the future of the ImageJ2 application.   * Developed a unified syntax for function invocation across libraries and languages, including ImageJ and NumPy. * Implemented a plugin discovery pathway   **Impact: In Development, Release and working paper expected 2024**  **ImageJ2 -** Core Developer <https://github.com/orgs/imagej>  Maintained the ImageJ2 and Fiji projects, applications powering open-source image processing in Java.   * Met weekly with other core and community developers in an advisory role * Used Agile practices to address the needs of the ImageJ community.   **Impact: 90+ pull requests adding additional features and bugfixes** |
| **Publications** |
| **Selzer, G.J.**, Rueden, C.T., Hiner, M.C. et al. napari-imagej: ImageJ ecosystem access from napari. **Nature Methods (2023)**. <https://doi.org/10.1038/s41592-023-01990-0>  Gahm NA, Rueden CT, Evans III EL, **Selzer G**, Hiner MC, Chacko JV, Gao D, Sherer NM, Eliceiri KW. “New Extensibility and Scripting Tools in the ImageJ Ecosystem.” **Current protocols. 2021** Aug;1(8):e204. https://doi.org/10.1002/cpz1.20 |
| **Skills** |
| **Professional (5+ years):** Java, Python, Git/GitHub, Eclipse, IntelliJ, VSCode, Markdown, Apache Maven, Qt, Vim  **Academic (1+ years):** Groovy, Tensorflow, MATLAB, HTML5/CSS, Javascript (Node.js), Bash, Apache Velocity, LaTeX, Jupyter Notebooks, Mathematica, Haskell, Rust, C/C++, CUDA, D3.js, Tableau, WebGPU, Flask, SQLite |