

# Richard Gibson

Software developer, Data researcher, Digital Cartographer, GigaPanner, General Tinkerer

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## Most Popular Skills

Programming	Data	Databases and Cloud	Geospatial
<ul style="list-style-type: none"><li>• Python</li><li>• Django</li><li>• Flask</li><li>• Jupyter</li><li>• Pandas</li><li>• GeoPandas</li><li>• Docker</li></ul>	<ul style="list-style-type: none"><li>• Precisely</li><li>• LightBox</li><li>• Ookla</li><li>• American Community Survey</li><li>• SafeGraph</li><li>• FCC 477 Data Collection</li><li>• FCC Broadband Now Data</li><li>• ISP filings</li></ul>	<ul style="list-style-type: none"><li>• BigQuery</li><li>• Google Cloud</li><li>• PostGIS</li><li>• Crunchy Data</li><li>• AWS, RDS</li></ul>	<ul style="list-style-type: none"><li>• GDAL</li><li>• QGIS</li><li>• Foursquare Studio</li><li>• ETL with spatial and non spatial data</li></ul>

**Additional Skills:** Modern dev tools (GitHub, CI, testing), Columnar data (Parquet, DuckDB), Linux/etc command line tools, Airflow, GraphQ, I've spent most of my time with data and in the back end but I have been a Full Stack developer and I still no how to look at the developer tools in the browser. GeoServer and GeoNode. Ran geocoder.us (A US Geocoder) for 10+ years). High resolution (gigapixel and up) processing and pipelines.

## Previous Experience

### **Hexvarium - Sr. Software Engineer and Data Researcher**

(also Paxio, OpenFiber, and Open5G)

May 2017 - June 2023

Competitive data research for national fiber initiatives, Digital cartography, ISP filing, Stakeholder presentations, Software development

### **Rigel Pharmaceuticals - Software Engineer**

Dec 2015 - Nov 2016

Worked with a Django applications using MySQL and MongoDB to manage microscope images and immunotherapy research pipeline.

### **Scale Independent Imaging – Founder & Developer**

January 2015 – November 2016

Built a macro scale high resolution imaging lab allowing focus stacked and stitched high-resolution images (GigaPans)

### **Brave New Talent - Developer**

April 2014 – June 2014

Developed code and implemented tests for large SOA knowledge-sharing platform. Integrated external services and datasources and content search with Elastic Search

### **Eyegorithm - Director of Engineering**

November 2012 – July 2013

Software Engineering in Python/Django. Translated ideas of stakeholders into prototype web code.

### **Carnegie Mellon University at NASA Ames Research Center - 'Gigapanner' and Software Engineer**

September 2008 – November 2011

Led GigaPan project with CMU CREATE Lab and NASA's Intelligent Robotics Group. Developed client-server Stitching Farm in Django to simplify regression testing. Designed and built hardware kit to automate manual microscopes in Explorable Microscopy project.

### **Meadan - Senior Engineer**

May 2007 – September 2007

Designed and implemented architecture for initial Meedan systems in Ruby on Rails

### **O'Reilly Media – Author**

Co-authored *Mapping Hacks: Tips & Tools for Electronic Cartography* (2005)

Contributed to *Wireless Hacks: Tips & Tools for Building, Extending, and Securing Your Network* (2005)

Co-authored *Google Maps Hacks* (2006)

Presented at multiple conferences, including O'Reilly's Open Source Conference (OSCON)

### **Zappos.com - Software Engineer**

January 2001 – August 2002

Full stack developer for Perl-based Zappos system, implemented payment by Military STAR Card and first instance of UPS return on web functionality.

## **Hobbies and Interests**

So many, just ask!