

# Stephen Ingram

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[github.com/sfingram](https://github.com/sfingram)

## WORK EXPERIENCE

### **Principal Software Engineer, RISC Networks; Asheville, NC    2017    Present**

Head of backend engineering team for distributed IT-analytics platform. Optimized processing of network connectivity and application data. Automated clustering using probabilistic modeling. Maintained service level agreements for bug resolution and quarterly releases.

### **Staff Software Engineer, Coho Data; Vancouver, BC    2013    2017**

Developed a customer analytics and diagnostics service with containerized microservice architecture. Created the “counter stack” modeling data structure and distributed database to enable analysis of high volumes of block-level trace data.

### **Developer/Analyst; Twin Beach Analytics; Vancouver BC    2008    2012**

Designed and implemented algorithms for trading index futures. Developed in-house, high-volume trading simulation and analysis software.

### **Previous Experiences**

- Development contract for BC Cancer Agency for 6 months in 2007-2008.
- Senior Developer position at Emory University Library in 2004-2005

## RESEARCH LAB EXPERIENCE

### **Imager Lab, University of British Columbia; Vancouver BC    2006    2013**

- Designed and implemented prototype for investigative journalism tool [Overview](#).
- Developed algorithms to visualize clusters of millions of documents ( [paper](#) )
- Wrote GPU code to improve speed and quality of energy-based data layout.

### **GVU, Georgia Tech; Atlanta, GA    2003    2004**

- Researched and implemented textured geometry synthesis ( [paper](#) )

## EDUCATION

**University of British Columbia**, Vancouver, BC — PhD Computer Science, 2013

**University of British Columbia**, Vancouver, BC — M.Sc. Computer Science, 2007

**Georgia Tech**, Atlanta, GA — B.Sc. (Honors) Computer Science, 2004

## SKILLS

**Languages:** Python (2.7/3.6+), Java 8+, Perl5, C99, Javascript (ES6), R, Clojure, Matlab, WebGL

**Data Stores:** MySQL, Postgres, Elasticsearch, MongoDB, InfluxDB, Redis

**Data Analysis:** Jupyter & numpy/Pandas/scikit, RStudio + Tidyverse, ELK stack

## NOTABLE PUBLICATIONS

### **Glimmer: Multilevel MDS on the GPU**

→ S Ingram, T Munzner, M Olano, IEEE Transactions on Visualization and Computer Graphics 15 (2), 249-261

### **Characterizing Storage Workloads with Counter Stacks**

→ J Wires, S Ingram, Z Drudi, NJA Harvey, A Warfield, C Data, OSDI, 335-349

## PATENTS

**US20170060769A1** ( [application](#) ) Systems, methods and devices for implementing data management in a distributed data storage system

**US20150106578A1** ( [application](#) ) Systems, devices and methods for generating locality-indicative data representations of data streams, and compressions thereof