spencer tipping   505 730 8034 // spencer.tipping@gmail.com

github **open source** : spencertipping.com   11312 commits: +1,037,066 -497,672 lines: 2009 - present

computer science	ni: fast data processing + visualization	spencertipping.com/ni
	phi: FORTH+Smalltalk+Lisp in machine code	spencertipping.com/phi
	Caterwaul: rapid Javascript development	spencertipping.com/catjs
	Lisp + garbage collection in bash	spencertipping.com/blambda
	How to write a UNIX shell	spencertipping.com/shellhowto
	How to write a JIT compiler	spencertipping.com/jithowto
	Javascript in Ten Minutes	spencertipping.com/js10
	Information theory in Ten Minutes	spencertipping.com/it10
linux/experiments	An improved cd command for bash	spencertipping.com/cd
	Laundry room datacenter	spencertipping.com/datacenter
	Rendering OpenStreetMap history in 4k	spencertipping.com/osm
	GPS multipath error + satellite tracking	spencertipping.com/gps
	3D sonar trilateration for cell phones	spencertipping.com/sonar

factual.com **Factual** : (remote) senior software engineer / data scientist   2012/Aug - 2018/May

Delivered high-impact R&D and efficient, correct core libraries. Shipped MVPs for many different department heads and worked with executives to inform product and research strategy. Highly engaged in engineering culture and hiring; mentored many junior and mid-level engineers across several teams.

computer science	Data pipeline performance	spencertipping.com/pipeline
	Fast bitwise geohash encoding	spencertipping.com/geohash
	Fast indirect sorting in Java	spencertipping.com/javasort
	nfu: fast medium-data processing	spencertipping.com/nfu
	Fast, scalable polygon geometry library	Java, C: design, implementation, support
	Fast entropy-based entity resolution	Java, Hadoop: design + implementation
data science	Fourier transform for geodata forensics	spencertipping.com/fraud1
	Statistical fraud detection	spencertipping.com/fraud2
	Polygon compression	spencertipping.com/polycomp
	Wavelet-based accelerometer parsing	ni, Octave, gnuplot: R&D + documentation
	Place attachment QA + training data	ni, Perl, Hadoop: R&D + documentation
	Ontological bias + correction for categories	ni, NumPy: research + implementation
adtech backend	Core processing pipeline	Clojure, Hadoop: design + implementation
	Insights processing pipeline	ni, Perl, bash, Hadoop: POC + implementation
	Cryptographically secure differential privacy	Java, Hadoop: design + implementation
	Behavioral model validation + analysis	ni, Perl, gnuplot: R&D + implementation

google.com **Google** : software engineer   2011/Nov - 2012/Apr

Google Groups developer using GWT and focused on accessibility compliance.
Gave a tech talk on V8 compiler performance: spencertipping.com/v8perf.

(acquired) **Social Media Networks** : lead software engineer   2010/Jan - 2011/Nov

Lead client-side developer with full-stack work in Scala/HBase.
Project and development owner for the visual ad editor: spencertipping.com/vedit.

(inactive) **Border Stylo** : lead software engineer   2009/Jan - 2009/Sep

Lead frontend engineer, co-inventor of the content anchoring patent: spencertipping.com/capatent.
Developed the engineering interview process.

truman.edu **Truman State University** : math+CS major   2005-2009, dropped out, 3.94/4 GPA

mathematical modeling	MathBio: evolutionary drift	spencertipping.com/2008nsf
	MAA competition: airplane boarding	spencertipping.com/2007mcm