William Lyon

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Helping the world make sense of data.

Experience

Staff Developer Advocate
Neo4j

Jan 2022 - Present

Driving awareness and adoption of the Neo4j graph data platform by helping developers be successful building applications and making sense of data. Designed and executed programs to bring Neo4j to new audiences such as the Neo4j Data Journalism Accelerator, the Neo4j Startup Program and the GraphStuff.FM podcast. Created content for developers such as tutorials, demo applications, documentation, books, and blog posts with a focus on awareness and education for full stack developers. Conference presentations, training, creating workshops and tutorials, livestreams, podcast interviews, webinars, meetups, hosting hackathons, and gathering user feedback are some of my typical daily activities.

Senior Software Engineer - Neo4j Labs
Neo4j

Oct 2019 - Jan 2022

The Neo4j Labs team drives product innovation by building and validating experimental integrations and extensions to the Neo4j graph data platform with the goal of including successful Labs projects into the Neo4j core product experience. My focus here was building open-source tooling around data import, data visualization, and GraphQL.

Developer Relations Engineer
Neo4j

Sep 2015 - Oct 2019

As a software developer on the Developer Relations team at Neo4j, my job is to ensure that developers are successful with Neo4j. This includes writing open source tools that integrate Neo4j with other technologies, building and maintaining production services that enable users to experience Neo4j in the cloud, creating demo apps, writing technical content, giving trainings, and consulting with users

Software Engineer
Datamaglia

Nov 2014 - Sep 2015

Built collaborative filtering based personalized recommendations engine and API using Java and Neo4j. Developed Objective-C and Swift API libraries. Developed iOS personalized recommendation photo browsing app to demonstrate Datamaglia API using Swift.

· Objective-C
· Swift
· Java
· Neo4j

Software Engineer
Goomzee

Mar 2014 - Nov 2014

Development of real-estate listings iOS app using Objective-C. User interface updates for iOS 8, API integrations. Java backend development with Neo4j to support new product. Node.js web application and API application development.

· Objective-C
· Node.js
· ElasticSearch
· MySQL

Software Engineer
OSGeo

May 2014 - Aug 2014

Extended Neo4j Graph Database Cypher query language to support geospatial query operations backed by Neo4j Spatial extension as part of Google sponsored Google Summer of Code 2014 (GSoC) with the Open Source Geospatial Foundation (OSGeo).

· Scala
· Cypher
· Neo4j
· Java

Education

M.S., Computer Science
University of Montana

B.A., Economics
University of Montana

Certificates

GIS Sciences & Technologies
University of Montana (In Progress)

Cartography
ESRI

Spatial Data Science
ESRI

Startup Engineering
Coursera

Intro to Big Data with Apache Spark
edX

Neo4j Certified Professional
Neo4j

Links

lyonwj.com

dev.to/lyonwj

lyonwj.com/blog

twitter.com/lyonwj

lyonwj.com/videos

medium.com/@lyonwj

github.com/johnymontana

Software Engineer   Jan 2013 - Mar 2014
Quantpost

Built system for real time streaming data integration with financial market exchanges (stock and options data), including near real-time volatility calculations (Java, MongoDB). Implemented Twitter stream Natural Language Processing system to identify key financial news events that might impact options trading (Node.js). Full stack web application development.

- · Objective-C++   · MongoDB
- · Java   · D3.js
- · Redis   · NLP

Instructor   Dec 2012 - Dec 2013
University Of Montana Department Of Computer Science

Taught CSCI 100: Introduction To Computer Programming for two semesters.

Projects

Creator   Jan 2021 - Present
Full Stack Graph Livestreams

Building sample applications on the Neo4j live stream to engage with full stack developers. Sample applications included a real estate search app, a travel guide with navigation functionality, a podcast player with personalized recommendations, and a news reader application.

Co-Host   Jan 2021 - Present
GraphStuff.FM Podcast

Creator, editor, and co-host of the GraphStuff.FM podcast for developers and data scientists.

Author   May 2014 - Aug 2014
Database Clinic: Neo4j, LinkedIn Learning

Created a video course for the Lynda/LinkedIn Learning platform to teach developers how to use the Neo4j graph database.

Publications

Full Stack GraphQL Applications: With React, Node.js, & Neo4j   Aug 2023
Manning Publications (Book)

Technical book that shows how to build full stack GraphQL applications backed by a native graph database. Focus on how the pieces fit together in the modern cloud developer environment and how to leverage the Neo4j GraphQL Library database integration for building and deploying fast scalable GraphQL applications in the cloud.

Understanding Trolls With Efficient Analytics of Large Graphs In Neo4j   Jan 2019
BTW 2019

Analytics of large graph data applied to a dataset of Russian Twitter Trolls obtained by NBC News to investigate the impact of social media misinformation on the 2016 US election.

An Adaptive Hybrid Method for Link Prediction in Multi-Modal Directed Complex Networks Using the Graph Traversal Pattern   Dec 2014
University of Montana Masters Thesis

The paper examines the link prediction problem for directed multi-modal complex networks. Specically, a hybrid method combining collaborative filtering and Triadic Closeness methods is developed. The methods are applied to a sample of the GitHub network. Implementation details are discussed, with a focus on design of a scalable system for handling large data sets.