# **Brian Walsh**

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## **Summary**

As a software engineer with a long history in commercial and academic software development, my goal is to help teams deliver predictable creative solutions that bridge the gap between biology and computer science. In various roles, I've been responsible for all aspects of the software lifecycle including planning, staffing, management, architecture, design, and implementation. I encourage and enjoy peer-reviewed, crossfunctional collaborations.

- Technical leadership, use case focus: Work with customers, product owners, and management in both high and low process environments, to achieve product and release requirements. Provide engineering leadership and project management grounded in team mission.
- Software architect and "hands-on" full stack engineer: Skilled cross platform software engineer and architect with an extensive background in systems and enterprise applications. Experience as an architect and engineer with broad experience in Internet applications, micro services, object-oriented systems, user interfaces, and high-performance computing. Proficient developer with many common programming languages, contributes to all aspects of the software development process

## **Expertise**

Full stack engineer. Languages: Python, Java, JavaScript, Ruby, R, C. Devops: Openstack, Kubernetes, Docker, Ansible, Puppet, AWS, GCP. Backend: Postgres, SQLServer, Elasticsearch, Mongo, neo4j, kafka, JMS. Frontend: Mobile, React, Ansible. Management: Engineering Manager, Product Owner, Scrum master.

# **Experience**

Senior Engineer OHSU Computational Biology 2015 – Present. Collaborations include:

- GA4GH (Global Alliance for Genomic Health): Technical lead on genotype to phenotype. Founding member of cancervariants.org, Contributions to "DRS" to index data in disparate repositories. Paper accepted by Nature Genetics.
- **BMEG** (BioMedical Evidence Graph): A graph database for discovery and analysis of cancer biology to enable analysis, integrated with UChicago's Gen3/GDC microservices, available online at bmeg.io. Paper accepted by JCO Clinical Cancer Informatics.
- **AnVIL**: Focused on harmonizing APIs and data across 80+ cancer projects for a cloud based ecosystem that co-locates high value data sets with commonly used bioinformatics tools in a secure environment.
- Grants: Facilitated NCI Cancer Data Aggregation proposal between OHSU and University of Chicago.
- **OICR Data portal:** Technical lead on local port of OICR portal and pipelines to support pan cancer pipelines and visualizations for a partnership with OHSU and the Ontario Institute of Cancer Research.
- **Intel CCC:** Lead on data management for partnership with OHSU, Intel, Dana-Farber and others.
- **Internal experiments:** Design and implementation of BAML search, Labkey/Gen3 integration, external websites.
- ACC: Manage collaboration between Compbio and ACC. Responsibilities for Openstack, Kubernetes, Authorization and Devops issues.

#### President at bwalsh.com inc. 1998 - 2015

Entrepreneur responsible for business development and delivery.

#### Director HCL America 2013 - 2015

Advocate for predictable and repeatable success. Engaged with clients at all levels from engineering to the C level. Clients: Royal Mail, Fedex, Southwest Airlines, and Lineage Logistics.

### Architecture, Engineering, Product Management UTi Worldwide Inc. 2010 - 2013

Managed Enterprise Architecture, UX, and Agile transformation.

### Architecture, Product Management Clearwire 2009 - 2010

Worked with multiple vendors engineering and product teams to deliver a leading edge mobile handset based on Android . Portfolio included: Mobile Video Chat, VOIP, Portal integration

### Chief Technology Officer Second Porch 2008/2009

Managed technology from an early 'paper-napkin' stage through launch

### Engineer Attensa 2007/2009

Content ranking and recommendation engine. Java services, C++ analytics, neural network ranking engine, ESB cluster, Ajax portlets, PHP rending engine, desktop clients and multiple database platforms

#### Other clients:

Blackwell, Standard Insurance, TIBCO Software, Timberline Software, UxComm, Fios Inc, Liberty Mutual, PreCash Inc., XO Communications, Cap Gemini America Sogeti, Avis Rent A Car, Unisys

## **Education**

Saint John's University BS, Computer Science 1982

# **Publications**

**Nature Genetics**: "A Harmonized Meta-knowledgebase of Clinical Interpretations of Cancer Genomic Variants"

JCO Clinical Cancer Informatics: "Exploring Integrative Analysis using the BioMedical Evidence Graph" CMP Media Network Computing: "Corporate View" column