

Lee Falin

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Summary

Computational scientist and former university professor with experience in commercial software development, machine learning, web development, and storytelling.

Industry Experience

Software Engineer / Web Developer at Rogue Amoeba 2018 - 2019, 2020 - Present

I'm currently working on a remote, asynchronous team as a web developer and mac software engineer on a variety of commercial software projects for macOS, iOS, and Android using Objective-C, Swift, Python, and Java.

I also develop and maintain a variety of public web applications and internal tools using Vanilla JavaScript, Vue.js, Babel, Webpack, AWS, PHP, and Python.

Light and Lore - Data Science Consultant May 2017 - Present

Worked with clients using the CRISP-DM process model to develop custom Machine Learning and Data Engineering pipelines to help them solve data analysis, visualization, and other machine learning problems. Technologies used include pandas, NumPy, Matplotlib, scikit-learn, TensorFlow, Keras, and Shapley.

Software Engineer at Rogue Amoeba 2008 - 2016

I worked at Rogue Amoeba in various capacities (full-time, part-time, contractor) from 2008 to 2016, depending on what was happening with my academic career.

During that time, I worked on various of commercial audio software on a variety of platforms including Windows, Linux, iOS, Android, and Raspberry Pi. The technology stack varied based on platform, but included C++, C#.NET, Java, Objective-C, and Python.

Bioinformatician at EMBL-EBI 2012 - 2014

I worked with a team of international collaborators on the Microme and Ensembl Genomes projects to develop and deploy novel data science algorithms on large scale genomic and metabolomic datasets.

The main technology stack included Oracle, Perl, Python, Platform LSF, and Java. I also used a fair amount of MySQL, MongoDB, Neo4J, HTML, CSS and JavaScript.

Owner and Software Engineer 2005 - 2008

Polarian was a company I started as an undergraduate student. Polarian's main product was Screen Mimic, a screen recording application designed for macOS, built using Objective-C and OpenGL. It had support for QuickTime, Flash, and Flash Video formats.

In 2008 Polarian was acquired by Decimus software.

Senior Software Engineer at Cat Communications Inc. 2001 - 2005

At CCI, I developed a variety of software to integrate sales, marketing, and 3rd party order provisioning systems. Most of the software was written using Microsoft's .NET stack, including: MS SQL Server, Microsoft BizTalk Server, and C# .NET.

Education

- PhD Genetics, Bioinformatics, and Computational Biology, Virginia Tech - 2011
- BS Computer Science, University of Illinois Springfield - 2008

Academic Appointments

- Faculty of Computer Science BYU-Idaho: 2020 – 2021
- Assistant Professor of Computer Science Southern Virginia University: 2017 – 2018
- Visiting Faculty of Computer Science BYU-Idaho: 2015 – 2017
- CS/EE Adjunct BYU-Idaho: 2014 – 2015
- Bioinformatician EMBL–European Bioinformatics Institute: 2012 – 2014
- Research Assistant, Tyler Lab Virginia Bioinformatics Institute: 2006 – 2011

Publications

Ensembl Genomes 2016: more genomes, more complexity.

Kersey, Paul; et al. - Nucl. Acids Res. (04 January 2016)

Ensembl Genomes 2013: Scaling up access to genome-wide data.

Kersey, Paul; et al. - Nucl. Acids Res. (1 January 2014)

Using Interpolation to Estimate System Uncertainty in Gene Expression Experiments.

Falin LJ, Tyler BM (2011) - PLoS ONE 6(7): e22071.

Languages

- English - Native Proficiency
- Brazilian Portuguese - Professional working proficiency

Volunteer Experience

- Missionary for The Church of Jesus Christ of Latter Day Saints - 1996 - 1998
- Scoutmaster for The Boy Scouts of America - 2009 - 2012