

JOHN LEUNG

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github
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SOFTWARE ENGINEER, INNOVATOR, ENTREPRENEUR

Passion *For coming up with simple innovative user interface designs and quality software solutions to solve user's needs*

Skills	Soft Skills	Javascript Stack	Other Stacks
	Lead and Provide guidance for Successful Teams and Projects	JS/Typescript, Vite, React, Svelte, Three.js, Nodejs, Express, Supabase, Tap, Knex, TestCafe	Python: Flask, Django, Pylons, Jinja2, Machine Learning, DNN
	Provide Simple, Innovative and Maintainable solutions to hard problems		Database: Postgres, Mongo Data Visualization

Innovations	foldMation	aiGames	Data Explorer
	Created a new Innovative way to bring Origami Fold Creation and Learning online.	A web application to play against strong AI games.	Creator of Patent Awarded Mind Map tool to help MetricStream customers understand and explore their data and relationships.
	Enabling the creation of Origami Folds and Interactive Learning experience that was not previously possible.	The AI engine is created by studying DeepMind's AlphaZero research paper and implement it in Javascript.	It was the highlight of the 2016 GRC Summit.
		Applied the AI engine to the game of Othello / Reversi.	

Experience	foldMation, Projects	2021 - Present
	<i>foldMation - Principal (2022 - Present)</i>	
	See above	
	<i>Projects - Principal (2021 - 2022)</i>	
	Created a Trading View-like Realtime Stock Charting and Management web application.	

CancerLinQ	2018 - 2020
<i>Sr. Software Engineer, Engineering Manager (2020)</i>	
Created and maintained the CQL Measure Execution Engine and Testing Framework for it.	
Integrated ThoughtSpot and Looker into our application.	
Helped create UI and API for Measures and QCQR points calculation & submission and other parts of the application.	
Architect our TestCafe UI Test suite to be configurable and runnable from a web browser.	
Provide coding guidance and quality code reviews.	
Head the hiring process; Work with Product Team on different initiatives.	

MetricStream

2015-2017

Sr. Tech Lead

Designed and built **Instant GRC** - A web application to provision and manage MetricStream's application instances on the cloud.

Designed and built **Data Explorer** - A Mind Map Exploration Tool to help navigate user's data and relationships.

Blogs

2014

Principal

Maintained and ran various Wordpress and static sites.

LearnStreet

2013

Lead Engineer

Designed and built **Livedoc** - A new interactive document-like interface for online coding lessons.

Designed and lead team to build the Teacher and Student Dashboard.

CK12

2012

Software Consultant

Designed and built CK12's student landing page - A dashboard to view their learning progress, results, and up-coming lessons.

Designed and built CK12's system admin application.

Eventkite

2011

Principal

Created an event search and listing web application.

Nixle

2008-2010

Senior Software Engineer

Built Nixle's geographical based message sending web application platform from only wireframes.

Designed and built the hierarchical targeted group communications system used by the Pittsburgh Police Department at the 2009 G-20 Summit.

Software Consultant

2007-2008

Implemented Times Series Technical Analysis algorithms for stock trading and simulation based on historical data.

Togoware

2005-2006

Principal

Reverse engineered the undocumented RCA e-book device file format and created software to convert digital images to be loaded onto it.

Loading the file enables it to function like a digital photo album, giving it a new life and functionality it never had. Output includes Thumbnail indexes for ease of use.

Alcatel USA

1998-2002

Senior Electrical and Software Engineer

Designed company's core FPGA Chip used in its switch, enabling DSL services across the world.
Built the new switch firmware powering Alcatel's new generation of switches.

Logic Plus

1997

Software Consultant

Designed the backup telemetry system for a government blimp project. System sends altimetry and heading information to a ground-based handheld device via calculations from blimp's sensors.

Other Projects

Tech Talks

Topics: Data Visualization, Cross-Platform Development, Languages and Ecosystems

Self Driving Car Nanodegree

Term 1 Completion

Simple Physics Engine

A simple 2D Physics Engine in Javascript without external libraries or plugins, runnable in all web browsers.

Digital Image Processing

Image Binarization, Compression, Segmentation, Transforms, and Image Orientation Detection algorithms Implementations.

Education

California State Polytechnic University, Pomona, CA

2002-2004

M.S. Computer Science
(near completion)

Cal Poly State University, San Luis Obispo, CA

1992-1997

B.S. Computer Engineering
