

Wei Lu

SENIOR SOFTWARE ENGINEER · PROJECT LEAD · DATA SCIENTIST

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Summary

- Effective project lead with excellent technical, analytical and communication skills
- Well-rounded, full-stack software engineer
- Highly effective data science practitioner in economics research context
- Programming language polyglot
- Conference speaker and active in regional technical communities

Experience

World Bank

United States

CONSULTANT

Nov. 2020 - Current

I'm currently working as a consultant on the Governance team of the Development Impact Evaluation (DIME) department. DIME develops customized data and evidence ecosystems to produce actionable information and recommend specific policy pathways to maximize impact.

- Leading the data platform component of the Microdata & Evidence for Government (MEGA) global public good initiative, including product management, business development, data engineering, and fundraising
- Advising DIME department leadership on data platform and information system strategic investment through the World Bank's ITS capital budget planning process
- Leading the project management and software development effort of Arbiter/Cadaster – a mediation case management and analytics platform piloted and since productionized by the Kenyan Judiciary
- Leading the functional, technical and architectural design for the modernization of the Information System for Jordan Response Platform for the Syria Crisis (JORISS)
- Conceptualizing and co-leading the DIME Digital program through collaboration with Digital Development Global Practice's Global Challenge Program
- Designing and implementing impact evaluations through randomized controlled trials (RCTs) of web based interventions in various country context, including Peru, Kenya and France

Unit.IO

Singapore

CO-FOUNDER & SOFTWARE ENGINEER & DATA SCIENTIST

Dec. 2017 - Dec. 2019

I co-founded unit.io to build quality software and data science solutions for our academic and corporate clients.

Quantcast

Singapore

ENGINEERING TEAM LEAD

Sept. 2014 - Nov. 2017

Quantcast is a technology company that uses big data to make online advertising more relevant for end users and more effective for advertisers.

- Leading the ad services team responsible for advertising campaign data distribution to bidding servers
- Re-architecting the real-time bidding (RTB) configuration data pipeline – from a batch system to an update stream
- Two-time prize winner of the company hackathons

Hive Wallet

Remote

LEAD ENGINEER

Jan. 2014 - Sept. 2014

Hive brings secure, simple and cross-platform cryptocurrency wallet apps to the consumer market. As a company, Hive honors open source in their source code distribution, and decentralization in software design.

- Leading the frontend and backend development of hive-js, the web wallet that is designed for evergreen browsers
- Core developer and maintainer on the most popular open-source bitcoin JavaScript library: bitcoinjs-lib

Pivotal Labs

Singapore

SOFTWARE ENGINEER

Dec. 2011 - Jan. 2014

Pivotal is a global agile development consultancy. I was trained to become a consultant to help our clients create their app from scratch while building their engineering team with agile practices and principles.

- Full stack test-driven development of web services
- Building data pipeline with Amazon EMR and analytics tools

Education

Massachusetts Institute of Technology

MASTER OF SCIENCE - DATA, ECONOMICS, AND DEVELOPMENT POLICY

GPA: 5.0/5.0

United States

Jan. 2018 - Jun. 2018, Jan. 2020 - Aug. 2020

National University of Singapore

MASTER OF COMPUTING - COMPUTER SCIENCE

CAP: 4.58/5.00, First Class Honors

Thesis: Learning Cooperative Solution Concepts from Voting behavior

Singapore

Aug. 2018 - Dec. 2019

National University of Singapore

BACHELOR OF COMPUTING - INFORMATION SYSTEMS

Minors: Mathematics, Technology Entrepreneurship

Dean's List Award (Top 5% of the cohort) for AY2009/2010 Semester 1 and AY2011/2012 Semester 1

Singapore

Aug. 2007 - Dec. 2011

Technical Skills

SOFTWARE DEVELOPMENT

- Web development using JavaScript, HTML5, CSS
- Experience with modern frontend and backend frameworks including: React, Django, Flask, Ruby on Rails
- Test driven development with unittest, Rspec, JUnit & Selenium
- Proficient with DevOps on Heroku and AWS EC2

DATA ENGINEERING & DATA SCIENCE

- Comfortable with creating and maintaining fully automated data pipelines
- Building and tuning ML models for classification, regression, sentiment analysis, and anomaly detection
- Proficient in writing complex SQL queries
- Ability to design and implement a complex relational database schema
- Data visualization using python, R and JS libraries and BI tools such as PowerBI and Metabase
- Experience with NoSQL databases such as CouchDB and DynamoDB

TOOLS

- Programming languages in order of proficiency: Python, JavaScript, R, Java, Ruby, Bash, Perl, Stata
- Development with Vim, RubyMine, IntelliJ, Jupyter Notebook, Databricks
- Version Control using Git and Subversion
- Typesetting with LaTeX
- Comfortable with Linux (CentOS, Ubuntu, Fedora) and macOS operating systems

Community

ACTIVITIES

2023-now **Organizer**, Computational Impact Meetup (Monthly Meetups)

2018 **Host**, JSConf Asia

2018 **Organizer**, Global Diversity CFP Day

2017-2019 **Organizer**, Singapore JS Book Club (Weekly Meetups)

2012-2015 **Organizer**, Singapore JS Meetup Group (Monthly Meetups)

World Bank, USA

Singapore

Singapore

Singapore

Singapore

CONFERENCE SPEAKING

2014 **JSConf Asia**, HTTP Headers: the Simplest Security

2014 **CampJS**, Bitcoin Workshop

2014 **Global Bitcoin Summit**, Peatio: an Open-source Crypto Currency Exchange

2013 **RubyConf China**, Writing expressive tests with RSpec

2012 **Red Dot Ruby Conf**, A Journey into Pair Programming

Singapore

Brisbane, Australia

Beijing, China

Shanghai, China

Singapore