

Contact

www.linkedin.com/in/cklin
(LinkedIn)

Top Skills

Distributed Systems
Machine Learning
Software Engineering

Publications

Flowcode: Multi-site data exchange over wireless ad-hoc networks using network coding

Loihi: A neuromorphic manycore processor with on-chip learning

Measuring diversity on a low-altitude UAV in a ground-to-air wireless 802.11 mesh network

Mapping spiking neural networks onto a manycore neuromorphic architecture

Improving Branch Prediction By Modeling Global History Data with Convolutional Neural Networks

Patents

Sparse Coding-Based Classification Techniques for data synchronization using compressive sensing

Temporally encoding a static spatial image

Mobile application acceleration via fine-grain offloading to cloud computing infrastructures

Method and apparatus for dynamically offloading execution of machine code in an application to a virtual machine

Chit-Kwan Lin

Founder | Computer Scientist | Machine Learning
San Francisco Bay Area

Summary

I'm a computer scientist who enjoys building useful products as much as research. My areas of expertise span machine learning, computer architecture, coding theory, distributed systems, and wireless networks.

Experience

Revelata, Inc.

Founder

2021 - Present (2 years)

San Francisco Bay Area

We're building an AI platform that automatically discovers and extracts structured data from your unstructured, long-form text documents.

JAZZ Venture Partners

Venture Partner

2023 - Present (less than a year)

San Francisco Bay Area

Freelance

Machine Learning Consultant

2020 - Present (3 years)

Menlo Park, California, United States

I provide technical due diligence for investors and advise on machine learning for early-stage startups.

My startup clients typically have some initial data science or ML efforts in place, and want to solidify their ML strategy (ranging from algorithms to IP to hiring talent) and/or have encountered significant technical roadblocks for which they need an experienced expert.

Intel Corporation

Research Lead

2014 - 2020 (6 years)

San Francisco Bay Area

I led the Smart Computing Architecture Team, where we focused on using machine learning to improve CPU performance. We were the first to develop CNNs for branch prediction and to show practical implementations of machine learning algorithms for dynamic, post-silicon CPU adaptation.

I was also the lead on several other research initiatives, including:

- NLP at Scale (Advanced Research and Technology Development Group), where I focused on system architectures and algorithms for distributed training of large Transformer models;
- Compilation for Non-von Neumann Architectures (Microarchitecture Research Lab), where I was responsible for the very first API and compiler for Loihi, Intel's neuromorphic research chip;
- ML in Edge Computing (Microarchitecture Research Lab), where I developed practical, low-power sparse approximation algorithms for use on edge devices.

UpShift Labs, Inc.

Founder

2012 - 2014 (2 years)

Greater New York City Area

UpShift's platform gave order-of-magnitude acceleration and doubled battery life for iOS apps by transparently and dynamically offloading computation to the cloud. I received a National Science Foundation SBIR award to spin-out and commercialize the research I did on compressive sensing/sparse approximation while I was at Harvard.

Harvard University

6 years

Postdoctoral Fellow

2012 - 2012 (less than a year)

Cambridge, MA

Graduate Research Assistant / Teaching Fellow

2006 - 2012 (6 years)

Cambridge, MA

My research was in cyberphysical systems, specifically wireless networking for distributed computing aboard drones. In collaboration with the Air Force

Research Lab and MIT Lincoln Lab, I developed novel network protocols, based on random linear network codes and compressive sensing, for high-throughput and fault-tolerant networking in tactical edge networks.

I was also Teaching Fellow for CS 143: Computer Networks (undergraduate course) as well as CS 144r/244r: Network Design Projects (upper-level/graduate-level research seminar).

MIT Lincoln Laboratory

Researcher

2009 - 2009 (less than a year)

Wideband Tactical Networking Group.

Glance Networks

Senior Software Engineer

2001 - 2007 (6 years)

Arlington, MA

Glance is a digital customer engagement platform integrating co-browsing, screen sharing, agent video, and mobile showcasing for online demos, presentations, webinars, support, and collaboration. We bootstrapped Glance into the profitable company it is today. I was a founding engineer, responsible for the design and implementation of our application and network protocols, web applications, and business logic, as well as data engineering.

Beansprout Networks

Senior Software Engineer

2000 - 2002 (2 years)

Cambridge, MA

Beansprout was a dot-com eHealth company serving pediatricians and their patients, as well as childcare providers and families. I held various engineering roles during my tenure and was the lead engineer on both the Pediatric and Childcare products when the company was acquired by Quintiles Transnational Corp in 2002.

Beth Israel Deaconess Medical Center

Programmer

1999 - 2000 (1 year)

Boston, MA

SeniorMed was a seminal study on how giving patients web access to their medical records impacted healthcare outcomes, hospital administration,

legal issues, and privacy. I designed and built the end-to-end web app that integrated with Beth Israel's legacy hospital EMR to give patients the ability to view their own prescription records online, for the very first time.

Education

Harvard University

Ph.D., Computer Science · (2006 - 2011)

Harvard University

S.M., Computer Science · (2006 - 2009)

Harvard University

A.B., Biochemical Sciences · (1995 - 1999)

Stuyvesant High School

· (1995)