Contact

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(LinkedIn)

Top Skills

Continuous Integration

Continuous Integration and
Continuous Delivery (CI/CD)

Continuous Delivery

Languages

English (Professional Working)

Vietnamese (Native or Bilingual)

Publications

Semantic Patch Inference

Precimonious: Tuning Assistant for
Floating-Point Precision

Generating Succinct Test Cases
using Don't Care Analysis

Extracting Significant Specifications
from Mining through Mutation
Testing

Discovering complete API rules with
mutation testing

Cuong Nguyen

Developer Productivity @ Anyscale
San Francisco Bay Area

Summary

I'm currently a software engineer at Anyscale. I believe here
at Anyscale, we are in a unique position to help accelerate the
advancement of AI technologies, by making it effortless for everyone
to scale their distributed AI applications.

In my previous role, I was a Software Engineering Manager
and Tech Lead at Meta for 8 years. My expertise is in building
infrastructure that improves developer efficiency. Examples include
CI/CD and testing, PRE infrastructure. My team built the backend
and infrastructure that powered the release of all products at Meta,
reduced the software release cycles across different domains from
months to hours. Some I believe are the fastest and safest CD
systems in the industry at its scale.

Experience

Anyscale
Staff Software Engineer
March 2023 - Present (7 months)
San Francisco Bay Area

Build tools and processes to improve productivity of AI and backend
developers

Meta
7 years 11 months

Engineering Manager
January 2021 - November 2022 (1 year 11 months)
Menlo Park, California

I supported the team building the Continuous Delivery system across Meta,
both tactical (operating the releases) and strategic (long-term focus on a
faster and safer release platform). Reducing the release cycle and helping
every engineers move faster is what we obsess with and what we did - though
tooling and advanced automation, we reduced the release cycle of all web

from days to hours, mobile from weeks to days, and backend services from months to weeks.

During my time at Meta, I have played several roles from being a Software Engineer, Tech Lead to Engineering Manager, and work on a few things:
- Build out the Release Signals/Automation team through hiring talents, building identity with enduring mission and vision, roadmaps to solve the most important problems for the organization
- Scaled backend release infrastructure and automation across Meta
- Scaled out the fastest continuous web release process for one of the world biggest sites
- Work on infrastructure that powers CI system, testing infrastructure and developer experience

Software Engineer
January 2015 - December 2020 (6 years)
Menlo Park, California, United States

Fujitsu
Research Intern
June 2014 - December 2014 (7 months)
Sunnyvale, USA

I spent the summer working on an algorithm to reduce the size of test program that are auto-generated by a system called symbolic execution generator. We ended up reduce the size by 50x on average. With previous knowledge working on floating point program at UC Berkeley, I teach the symbolic execution generator to work with test cases that use floating points as primitive types.

UC Berkeley
Graduate Student Researcher
August 2012 - December 2014 (2 years 5 months)
Berkeley, California, United States

Study software testing and symbolic execution. I helped develop a shadow execution for HHVM to run a program using different semantic. One application we did with that system was to optimize floating-point program precision while reducing the memory usage to store bits.

National University of Singapore
Research Assistant
July 2010 - June 2012 (2 years)

I studied data mining of software specifications. I built a tool to instrument and trace function call footprints for Java programs and mine common correctness function sequence patterns. I managed to find a few open source bugs that violate the correctness patterns that I found.

I also worked on a technique to mind common patterns from bug fix patches. Using these patterns, we found several bugs in Linux kernel code base that can be benefited from the same patches.

Another data mining technique we did was to mine the differences between traces produced by a working program and a non-working program to localize bugs.

National University of Singapore
Undergraduate Discussion Leader
August 2009 - December 2009 (5 months)

I taught two classes for junior students, one about Java programming and the other is about problem solving and algorithm. Deeply enjoy teaching and mentoring.

National University of Singapore
Undergraduate Student Researcher
May 2008 - August 2008 (4 months)

I added a feature for the Java Pathfinder system, which is a software verification system from Nasa, to verify LTL software specification.

Computing for Voluntary Welfare Organisations
Software Developer
May 2006 - August 2006 (4 months)

My first experience working for a customer product. We developed a web-based HR management system for Geylang East Home for the Aged (Geha), replace a bunch of paperwork, spreadsheet book-keeping with automation.

Education

University of California, Berkeley
Master's Degree, Computer Science · (2012 - 2015)

National University of Singapore
Bachelor of Computing, Computer Science · (2006 - 2010)