

Dewei Chen

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EDUCATION

NEW YORK UNIVERSITY

M.S. COMPUTER SCIENCE
Graduated in Dec 2015

UC SAN DIEGO

B.S. MECHANICAL ENGINEERING
Graduated Cum Laude in Jun 2009

SKILLS

PROGRAMMING

Node • Golang
Python • Ruby • C

FRONTEND

React • Angular

BACKEND

Nginx • Express.js • Koa.js
Django • RabbitMQ

DATABASE

PostgreSQL • Redis
Elasticsearch • MongoDB

DEVOPS

Docker • AWS
Ansible • Terraform

LINKS

Website:

<https://mutaphore.github.io>

Github:

<https://github.com/mutaphore>

COURSEWORK

GRADUATE LEVEL

Algorithms and Data Structures
Distributed Systems
Machine Learning
Advanced Operating Systems
Programming Languages
Discrete Mathematics

INTERESTS

Distributed Systems
Machine Learning
Cryptocurrencies

EXPERIENCE

SECOND SPECTRUM | SOFTWARE ENGINEER

Mar 2017 – Present at Los Angeles, CA

Second Spectrum is the official optical tracking provider of the NBA and uses machine intelligence to enhance the game viewing experience. I was responsible for building and scaling out our live video streaming pipeline.

- Design and develop highly available services to ingest live video feeds from encoders and deliver to client players on the web, iOS and Android.
- Build, monitor and scale infrastructure on AWS using Terraform: CDN, networking, DNS, load balancers, S3, SQS and lambda functions.
- Build internal DevOps tooling for automating CI/CD processes.
- Improve end to end latency of video streaming pipeline.

SYNOPSYS (CODISCOPE) | SOFTWARE ENGINEER

Jan 2016 – Mar 2017 at Boston, MA

Codiscope (acquired by Synopsys) builds cloud-based tools to analyze Java and JavaScript source code for security vulnerabilities from the OWASP top 10. I was the 5th engineer on the team with focus on developing our core Nodejs backend microservices.

- Led the agile development of new product features and improvements: technical design, proof-of-concept, implementation, testing and deployment.
- Developed core backend services/APIs for data access, identity access management, repository management and third party integrations.
- Designed and implemented new registration system that reduced user sign-up friction and doubled user registration conversion rate.
- Developed scripts to migrate and sync all existing customer data from Zendesk to Salesforce (50,000+ unique users).

EMPIRASIGN STRATEGIES | SOFTWARE ENGINEERING INTERN

Oct 2014 – Oct 2015 at New York, NY

Empirasign is a market data company that collects and supplies bond trading data from major banks in the U.S. and Europe. I worked on both front and backend projects.

- Developed Python programs to efficiently parse realtime bond trading data from emails, files and websites. Improved email search algorithm speed by 20%.
- Wrote client and server side code for an anonymous trade chat system.
- Developed backend APIs and custom tools to integrate with Google Analytics, Salesforce, Mail Chimp, Twilio and Pubnub.
- Tested and enhanced website user interface and Django backend APIs.

OPEN SOURCE

RTSP CLIENT SERVER JAVA

<https://github.com/mutaphore/RTSP-Client-Server>

Implementation of a video streaming server and client that communicate using the Real-Time Streaming Protocol (RTSP) and Realtime Transfer Protocol (RTP).

IMAGE COMPRESSION PYTHON

<https://github.com/mutaphore/svd-image-compression>

Compress an image by calculating the singular value decomposition (SVD) of the image matrix and optimize for compressed image quality using SSIM.