

Tim Xia

Senior Full-Stack Software Engineer

New York, NY

Portfolio: <https://devpost.com/ttback>

Github: <https://github.com/ttback>

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Summary

- › 9+ years of engineering and leadership experience with design, development, and delivery of successful, secure and performant **web products, mobile applications and large-scale data pipelines**
- › Strong product **ideation and prototyping ability** and creative passion for great **user experience, large-scale data pipeline and process automation.**
- › Self-motivated quick learner and cross-function team collaborator with experience in **Agile Development** (Scrum), **User-driven Design** for Enterprise, B2B, and B2C applications.

Experience

NYTimes

Senior Software Engineer

Search Team
Nov, 2018-Present

- › Led development of Timespast Internal Search portal redesign and new NYT Search UI features
- › GraphQL API integration for Timesmachine and Search UI
- › B2B business rule integration for Timesmachine project
- › Developed various tools for archive data verification, user engagement analysis dashboard, A/B testing, webdriverIO e2e testing, and security testing, CCPA and GDPR compliance with BigQuery, Python and Golang
- › Resolved production performance issues that involve SQL DB cleanup, JVM memory leak, Python Native API
- › Legacy project migration from vagrant to Docker-based workflow

Projects

NYT Search with Faceted filter(React)

Advance search with facets, A11Y-complaint responsive UI

Role	Solo engineer working with product and design
Tech. Stack	React, Sass, Webpack, Docker, GraphQL, Apollo.js, A/B Testing

NYT Timespast V2(React)

Redesign of internal search research tool powering NYT journalism

Role	Solo engineer working with product and design
Tech. Stack	React, Sass, Webpack, Docker

Timesmachine(Responsive Mobile/Web App)

Progressive Mobile/Web Archive(169 yrs. old) Microfilm reader

Role	Lead engineer working with product and design
Tech. Stack	jQuery, Python-multiprocessing, Less, Leaflet, PHP, GraphQL

def Education(self):

Bachelor of Computer Science(2011)

Graduated with honor

Georgia Institute of Techonlogy

def Skills(self):

Back-end

Python, Golang, Java, Node.js, Rust, PostgreSQL, Redis, MongoDB

Front-end

React/Redux/React-Native, jQuery, Leaflet, D3, Bootstrap/Material, Angular/Backbone, PhoneGap, Jest/Jasmine

Cloud & Devops

AWS, GCP, Docker, Kubernetes, Git, Jenkins/Drone CI, MapReduce

Others

Custom language parsers/lexers, AR Object detection, 3D Scan, High performance Financial Dashboard, large-scale multicore ETL, Web Scraper, NLP, Image processing, Game development, ElectronJS

def Awards(recent):

NYT Publisher Award for contribution made to Archive(2014)

Runner-up in DevCasa StoreItAll Hackathon(2015)

Runner-up in Bitcasa CloudFS Challenge (2015)

Experience++

NYTimes

Senior Software Engineer

Knowledge Management Team
Nov, 2016–Nov, 2018

- › Contributed and helped shipping the Python-based re-publishing pipeline of archive assets from 1851 to 2006.
- › Created a robust MapReduce script to sample and analyze all existing archive data from 1851–2006
- › Worked on Protobuf – GraphQL based Publishing Pipeline schema platform. Technology involves working with Java, Protobuf, Python, Docker and Drone-CI.
- › Migrate legacy projects from AWS and Jenkins CI to Drone-CI, Docker and Google Cloud.
- › Created a parallel processing tool to analyze 2.8 billion S3 objects (32 TB) to determine the best strategy for data migration on a single x1.32xlarge node (largest on AWS).
- › Created automation tool to patch all legacy servers for Intel Spectre security vulnerability

NYTimes

Software Engineer

R&D Lab and Archive Team
Aug, 2013–Nov, 2016

- › Joined NYT TimesMachine project as the first full-time developer
- › Improvised on many aspects of product engineering that required creative solutions
- › Collaborated with UX designers to realize a collective product vision from mockup to finish
- › Adapt different technology solutions to unique problem domains, ranging from Python, Mapreduce, Node.js, to React.js
- › Built the Timesmachine Reader V2.1 – “Plasma”, with new design and a load speed boost up to 2x faster.
- › Built the automated NYT TimesMachine Publisher, an advanced Python newspaper map tiler application customized for robust parallel execution at scale on Amazon MapReduce clusters
- › Latest Timesmachine Publisher can tile 100 tera-pixel newspaper scans/4 minutes on 460 8-core EC2 clusters for 3.6+ million scans.
- › Created a marketing monitor tool with Node.js to track sharing about Timesmachine across different social media and internal content distribution channels. It is able to handle N number of data sources and process data streams in real time.
- › Created a bookmarklet for viewing Timesmachine article as a JSON document.
- › Implemented CI pipeline with Jenkins CI and Ansible configuration, along with required bash scripts.

Fidelity Investments

Associate Software Engineer

Fidelity Personalized Portfolio Team
July, 2011–Aug, 2013

- › Strong team player to help building Fidelity Personalized Portfolio, one of Fidelity’s flagship Super Six financial service applications.
- › Successful leadership experience as mentor and lead developer for ISV College Internship Project
- › Delivered three financial service web applications using Spring MVC, jQuery, Datatables, RequireJS, Twitter Bootstrap, and Jasmine.
- › Built a real-time collaboration dashboard to streamline communication and coordination
- › Trained to develop a J2EE web application with Spring MVC Framework, iBatis, and Ajax.
- › Learned to build a C# front-end application to access the RESTful web service
- › Developed a Java Swing desktop client to work with Amazon S3 service from scratch, including application deployment solutions for both Windows and Mac.

Albeta Company

Freelance Game Producer and Developer

Games Team
Aug, 2007-July, 2011

- › Worked closely with other senior programmers on game projects Monkey King and The Great Siege
- › Designed game framework and levels with object-oriented programming concepts
- › Worked with media companies such as MTV networks and Kongregate to gain their support in game review and feedback, sponsorship, distribution, and promotion.
- › The Great Siege has over 10 million plays since release

United Planet

Web Developer

Web Design Intern
Sept, 2003-Oct, 2006

- › Built the company website as a portal of communication to support their work to bring
- › education and humanitarian support to developing countries.
- › Worked closely with team members to build Flash animations, web pages, and PHP scripts for the
- › website.
- › Responsible for weekly update of the company's website

Past Awards

- › ISV College Internship Project (2012) became Fidelity FIMT ALM's official product for release winning and iteration planning projects
- › Web App Project "Investa" (2012), won 2nd place in Fidelity's first ever Hackathon sponsored by Fidelity Labs.
- › DealTracker Android App (2010) is the Finalist in 2010 Convergence Innovation Competition founded by Georgia Tech's Research Operations Center
- › The Great Siege (10 million plays on 4,681 websites since release) won Daily 2nd Place of Newground.com on 04/20/2009

Work Authorization

- › US permanent resident and able to work permanently in USA