

# Terry Liu

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- Product-minded software engineer with over 10 years of professional backend experience
- Aspiring leader with excellent cross-functional communication skills
- Proven record of meticulous work and adaptability in dynamic environments
- Self-taught frontend experience that has launched numerous web applications
- Passionate about entrepreneurship and dedicated to creating meaningful impact for a better world

## Work Experience

### Bluejay HOA

Feb 2022 – Mar 2024

#### *Cofounder & Chief Technology Officer (CTO)*

- Mission: reimagine excellence in homeowners association (HOA) management software to improve the lives of homeowners and administrative staff
- Key Technology: Go GraphQL API servers, Postgres, TypeScript React frontend, all hosted on AWS (Fargate EC2, RDS, ECR, Secrets Manager) using Docker and Terraform
- Built a venture-backed vertical SaaS company through two rounds of fundraising
- Recruited a founding team of 4 engineers and mentored them for full-stack proficiency
- Developed complex financial integrations including a comprehensive accounting ledger, ACH payment workflows, and bank account connections using Modern Treasury's Ledger API, Dwolla, Plaid, and select Bank APIs
- Fostered a culture of innovation and velocity with emerging technologies like code generation via technology like sqlc, gqlgen, and GraphQL Code Gen
- Achieved milestones using agile methodologies and generated majority of work tickets in addition to organizing the backlog, sprints, and roadmap on Jira
- Guided product design and oversaw vast majority of key technical decisions
- Managed customer relations and onboarding while heeding feedback for iterative product enhancements
- Navigated and led the implementation of over a dozen 3rd-party integrations (e.g. Auth0, Postmark, Temporal, PDFShift, Uploadcare, Lob, LaunchDarkly, etc.)
- Contributed greater than 30% of the entire codebase (over 550k lines of code), heavily focused on the backend side (written in Go and SQL)

### Tempo

Nov 2020 – Feb 2022

#### *Engineering Team Lead*

#### *Senior Backend Engineer*

- Mission: democratize fitness by leveraging software and computer vision AI
- Key Technology: Python Django REST API servers, Postgres, GraphQL, AWS, ZeroMQ, React, Terraform
- Supervised extensive refactor projects without any reported failures on launch
- Directed and contributed to a comprehensive overhaul of the 'Leaderboard' feature, introducing enhancements such as group-based filtering

- Designed and implemented backend for larger projects including GraphQL adoption, 'Achievement Metrics', and 'Form Cues'
- Enhanced livestream stability, boosting weekly class session capacity tenfold from 3 to 30
- Optimized unit tests to execute in parallel, leading to a 70% reduction in CI test job runtimes for the core API
- Led team in adopting Jira and implementing Scrum best practices
- Rescued countless livestreams as primary on-call member and onboarded others to livestream infrastructure, inner workings, and on-call rotation

## **Nextdoor**

Jan 2017 – Aug 2020

*Senior Software Engineer*

*Software Engineer*

- Mission: strengthen communities with a social network platform designed with locality front and center
- Key Technology: Django web application and REST APIs, Postgres, Go microservices, DynamoDB, AWS, Docker
- Core member of the revenue-critical ads backend team responsible for the launch and ongoing development of proprietary ad servers used by a high-traffic social network
- Prevented the loss of thousands of revenue dollars by debugging a race condition that was causing the entire ad service to crash
- Spearheaded the redesign, implementation, and migration of the entire business data backend (using DynamoDB), unlocking many new features and partnerships
- Designed and improved internal APIs for interfacing with business data
- Discovered and implemented large refactors and deprecations that promoted good code reuse and better testing practices
- Guided the improvement of numerous initiatives including engineer onboarding, alerting and escalation practices, and the use of agile frameworks

## **Turnitin**

Aug 2013 – Dec 2016

*Software Engineer*

*Associate Software Engineer*

- Mission: bring fairness and efficiency to submissions of academic work using cloud-based SaaS
- Key Technology: Go microservices, C++ web crawler, Perl web servers, Postgres, Cassandra DB, HTML, CSS, Bash, REST
- Focused on building and maintaining the web crawler and publications loaders that provided content for the core product on a scrum team with wide-ranging responsibilities
- Helped in the design and implementation of REST APIs for microservices critical to the modularization and advancement of the core technology stack
- Provided valuable business insight into large content databases with simple, internal web consoles using frameworks like Bootstrap, amCharts, and Go to visualize content and make it searchable
- Learned from extensive hands-on experience querying databases, monitoring logs, creating dashboards, and fixing bugs on a daily basis

- Worked together with product specialists to address customer issues that required technical input

## Projects

### **Bonsai Metric Tree Tool**

Jul 2020 – Oct 2020

*Technical Cofounder*

- Mission: create a tool to improve project planning and metric roll-ups
- Key Technology: Python Django, React, Postgres, GCP, Conda
- Adapted a node-positioning algorithm research paper into code that was then used to render metric trees in the product

### **Team POP (Popular Opinion Polling)**

Jul 2015 – Sep 2019

*Technical Cofounder*

- Mission: socialize poll results as a way for people to learn more about their friends and popular opinion
- Key Technology: React Native, Postgres, AWS
- Designed, built, and launched web and mobile applications (iOS and Android) as a part-time entrepreneur
- Led technical research and architecture while contributing product decisions, high-level design, and vast majority of code

## Volunteering

### **Hack the Hood**

Apr 2018 – May 2018

- Mentored low-income youth of color twice a week for a 6-week boot camp focused on web basics including HTML, CSS, JS

### **Black Girls Code**

Jun 2017

- Taught underrepresented girls of various ages topics ranging from circuitry to web app development

## Education

### **California State Polytechnic University, Pomona, CA**

Jun 2013

*B.S. in Computer Science*

*Honors: Dean's List, President's List*

### **Udemy**

*Artificial Intelligence A-Z 2024 (Certificate of Completion)*

Mar 2024

## Technical Skills

### **Languages**

*Go, Python, C++, Perl, SQL, JavaScript, HTML, CSS*

### **Libraries/Frameworks**

*GraphQL, gqlgen, sqlc, React, MUI, React Query, Django, TypeScript, GraphQL Code Gen, React Native, jQuery, Bootstrap, D3*

### **Datstores**

*PostgreSQL, Elasticsearch, Cassandra, Firebase*

### **Integrations**

*Auth0, Datadog, Postmark, Plaid, Modern Treasury, Uploadcare, PDFShift, Lob, Temporal.io, Dwolla, Checkkeeper*

### **Other**

*AWS (Fargate EC2, RDS, ECR, Secrets Manager, DynamoDB), Docker, Jenkins, Linux, git, GitHub, Agile (Scrum), Terraform, TDD, Atlassian (Jira, Confluence), Github Actions, OpenAI, GitHub Copilot, Insomnia, Postman, Figma, VS Code, Vim*