

Bianca Tamayo

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SUMMARY

Software engineer with an innate drive to learn and tackle new challenges. I believe in the efficacy of establishing a proper foundation to build high-quality technical solutions. I'm product-focused and view software, processes, and code as products that deserve to be well-designed, thoughtfully crafted, and iteratively improved.

EXPERIENCE

Tesla

Senior Software Engineer

Fremont, California

April 2017 – Present

At Tesla, I joined the Digital Products department and initially focused on consumer-facing application development, and later on building platform tools. Digital Products is responsible for Tesla's website and the myriad services that interact with it. Our team manages the department's automation processes, and oversees architectural decisions for new services. Throughout our endeavors, we achieve our goals by taking pragmatic steps and delivering iterative improvements. In 2018, we built an internal Platform-as-a-Service to standardize the deployment workflow for new services, which reduced the initial setup timeline from several days to less than an hour.

- Spearheaded adoption of containerization within the department; established supporting infrastructure and related services (*Sonatype Nexus, Ansible, Docker*)
- Led architecture design of infrastructure for various services, including consumer-facing applications (e.g. <https://tesla.com/trips>)
- Planned and executed the progression of our CI platform from alpha to production-level stability through code refactoring, feature improvements, and collaboration with teams and developers across Tesla (*Kubernetes, Docker, Ansible*)
- Led technical development and grew the community for the CI platform from around 50 applications to 250 within six months
- Worked closely with different teams across Tesla on architecture reviews and automation workflows, including InfoSec, Platform Engineering, IT, and application development teams
- Mentored new hires and created a standard process for interviewing and on-boarding within our team
- Created and led the Developer Experience employee interest group at Tesla, which aimed to increase software engineering productivity and cohesion through the company through collaboration, knowledge sharing, and establishment of new conventions
- Oversaw the integration of HashiCorp Vault into both legacy and new applications (*Vault, Terraform*)
- Responsible for regular deployments of over 100 applications with both orchestrated and non-orchestrated Docker containers, as well as legacy applications to region-specific infrastructure (U.S. and China)
- Integrated APM into new and legacy applications and deployments (*New Relic, Puppet*)

Wickr (acquired NPL)

Senior Engineer

San Francisco, California

October 2015 – April 2017

Wickr acquired Net Power & Light (NPL) in 2016. Wickr provides a suite of tools for end-to-end encrypted communication for teams. It features file transfers, ephemeral messaging, video calls, and multiple clients with perfect forward secrecy.

- Began effort to containerize applications through Docker and updated corresponding deploy logic while maintaining parity and compatibility with non-containerized cloud deployments (*Fabric, Python*)
- Migrated distributed microservices infrastructure on AWS from EC2-classic to EC2-VPC
- Upgraded all microservice roles (OS and role-related software) from Ubuntu 12.04 to 16.04
- Updated automated deploy flows to incorporate new EC2-VPC logic including networking, autoscaling, and security group configuration (*AWS, Boto, Fabric*)

Net Power & Light (NPL)
Senior Engineer

San Francisco, California
October 2015 – April 2017

Wickr acquired Net Power & Light (NPL) in 2016. NPL provides a content sharing and synchronization solution for businesses and enterprise through Beam – an application virtualization platform – and Spin, a content-sharing and collaboration video conferencing app.

- Led the development of Spin Web – an Angular and Node.js-based client for Spin – including roadmapping and drafting technical specifications
- Worked in a team of six engineers; collaborated with Beam, iOS, and Android teams on cross-platform architectural decisions
- Core contributor to a customized fork of an open-source WebRTC framework, added features that enabled efficient data transfer across platforms (*Node.js, Node Native Modules*)
- Ensured smooth data flow and reliable sync of data between iOS, Android, and web clients by implementing missing data channels, pinpointing packet queue bottlenecks, and debugging across multiple server- and client-side components (*WebRTC, WebSockets, some Objective-C++*)
- Integrated Beam into Spin Web, initially through Chrome NaCl, later migrating to PNaCl (*Chrome PNaCl/NaCl*)
- Assisted in screening, interviewing, hiring, and on-boarding of new Spin Web team members

Questr
Software Engineer

Irvine, California
November 2013 – October 2015

Early stage startup aimed to deliver a social platform for users to create quests and earn achievements. Worked in a team of three developers to prototype a native iOS and web app with Ruby on Rails, and later the final web application with Node.js and Angular.js.

- Developed the Questr server-side software with Node.js, Express.js, and Postgres with Sequelize ORM
- Designed and implemented our REST API to ensure reliable communication between server software, and the web and iOS clients
- Implemented the client-side web application using Angular.js, JavaScript/jQuery, and Jade
- Assisted with front-end design and aesthetics by creating wireframes, drafting functional specifications, creating mockups, and prototyping views, behavior, and styles
- Prioritized and delegated tasks and issues to improve team coordination

EDUCATION

University of California, Irvine
Bachelor of Science (B.S.), Information & Computer Science

Irvine, California
September 2010 – June 2014

VOLUNTEER EXPERIENCE & ACTIVITIES

Hackbright Academy – Mentor
Queen's Best Stumpy Dog Rescue (QBSDR) – Foster Parent, Social Media/Web Management

2016
2015 – 2018

More projects, activities, and writing available at btamayo.me