Shahar Zimmerman

github.com/szimmer1

shaharz.me

Software Engineer

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B.A in Computer Science with Honors / B.S in Biochemistry with Honors | 3.65 GPA | Dean's Honors
University of California, Santa Cruz, September 2010 – June 2015

Key Accomplishments

- 3+ years of working experience with Ruby, Python, Java and Javascript, building full-stack features for mobile apps and IoT products, and writing ETL jobs.
- Built backend systems for 4 companies using Ruby on Rails, Flask, PHP, and Meteor. Deployed on AWS public cloud as highly-available, low-latency RESTful services using containerization and load balancing.
- Designed schema for, tuned and administered relational databases for applications with thousands of users.

Technical Skills & Expertise

Programming Languages: Java, Python, Ruby , Javascript, Scala, C++
Networking: OSI model, TCP/IP, UDP/IP, SSL/TLS, LAN networking, Wifi (802.11a/b/g/n/ac)
Application languages and Markup: PHP, Javascript, HTML5, CSS/SCSS
Database: MySQL, Postgres, AWS Redshift, MongoDB, AWS DynamoDB
Web Technologies: Apache Server, MVC Design Pattern, Rails/Ruby, Codeigniter/PHP, Angular.js, ES6, RESTful API's.
Cloud Technologies: HTTP, TCP/IP, AWS, Google cloud compute, UNIX, Virtualbox, Docker

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Work Experience

Software Engineer - Catalina Labs — November 2015 – Present

Catalina Labs develops mobile applications that use AI to improve consumers' home Internet experience.

- Designed, implemented and deployed a synchronization framework for Rails backend worker processes, using distributed resource locking with Redis. Framework was adopted by all company's customer-facing Rails apps.
- Designed and implemented a Python web scraping engine to extract unstructured web data to structured JSON documents for a data ingestion platform. Deployed as a micro-service using Flask on AWS EC2.
- Led a team of 3 developers to design, build and deploy a cloud-based Javascript execution framework in Node.js which scaled to thousands of WiFi routers and networking devices globally.
- Designed and implemented a custom backend rule engine in Ruby to provide personalized recommendations to the end user. Developed rules via a knowledge engineering process and applied statistical approaches such as linear regression and k-nearest neighbors.
- Led a group of 4 developers to implement a distributed ETL pipeline in Python between cloud storage, NoSQL and Postgres systems. Implemented distributed machine learning training algorithms for a IoT recommendations product , and an API endpoint for real-time inference on the Turi platform (acquired by Apple in August 2016).

Bioinformatics Software Engineer - Solazyme — July 2015 – November 2015

Solazyme uses genetic engineering to produce oil with made-to-order fatty-acid profiles at-scale from microalgae.

- Rebuilt ancient PHP-rendered website to an single-page client application from scratch using Angular.js, with 80% adoption from users.
- Designed, implemented, and deployed a front-end asset versioning, testing, and build pipeline using Node.js
- Implemented a high-throughput bioinformatics analytics pipeline and visualization using Python and D3.js

Full-stack Software Engineering Intern - PayStand — December 2014 – June 2015

PayStand is a payments-as-a-service platform, bringing the modern Internet to business payments.

- Built reactive client application pages in Javascript and HTML5, backing several RESTful endpoints in PHP.
- Optimized read & write query performance in Postgres relational database using custom indices and denormalization of data.