Howard Nguyen

Back-end Engineer

✉ howardanguyen@gmail.com | ⌂ www.howardanguyen.com | phoxelua | howardanguyen

Education

University of California, Berkeley   *3.5 GPA*
B.S. in Electrical Engineering and Computer Science   *Graduated May 2015*
- Coursework: Artificial Intelligence, Algorithms, Computer Architecture, Databases, Data Structures, Machine Learning, Graphics

Experience

Modsy   *Django, MySQL, AWS, Celery*
Back-end Engineer   *July 2017 - Present*
- Built and scaled a custom, in-house 3D render job pipeline that increased throughput by 3X
- Saved customer success 20 hours/week by creating an order management system with automated partial and full product refunding
- Improved query times by 50% and unified data access patterns by creating a data access layer for products and 3D render jobs
- Refactored and removed 20,000 lines of code within the first 3 months
- Increased unit test coverage from 58% to 80% by standardizing good coding practices and review
- Improved site reliability after benchmarking and refactoring expensive APIs and queries
- Created a release tool to automate deploys and release note creation that decreased deploy time by 5 hours/week
- Built an asynchronous job to parse and convert 3D asset files into V-Ray renderable files
- Provided real-time support as the primary bug handler for critical issues using Bugsnag, Papertrail, Fullstory, and CloudWatch

Captricity   *Django, PostgreSQL, Celery*
Full-stack Engineer   *June 2015 - July 2017*
- Designed and created a new regex-like model, from scratch, to support forms with pages that are optional, repeating, and out of order
- Increased job throughput by using Celery to asynchronously batch Amazon Human Intelligence Tasks (HITs) based on perceived effort, task type, and completion time
- Decreased job turnaround-time by building near real-time repricing of undesirable HITs
- Increased system reliability by migrating a part of job pipeline into a separate microservice
- Decreased system downtime through throttling and automatically splitting large jobs that consumed excessive resources
- Improved customer turnaround time by prioritizing jobs based on service level agreement(SLA)
- Ensured system scalability via benchmarking, optimizing Postgresql queries, and segregating Celery infrastructure
- Provided real-time support during system outages using Airbrake, Splunk, NewRelic, and custom monitoring integrations
- Mentored two summer full-stack interns and helped them deliver core improvements on form setup and configuration

Natero   *Java, Hadoop MapReduce, Pig*
Software Engineer Intern   *Summer 2014*
- Built a JSON configuration compiler to chain Hadoop MapReduce jobs and perform cohort analysis on large datasets
- Implemented client retention rate and "layercake" plot visualizations using d3
- Created a custom LRU Redis cache with locking for parallel operations and manual garbage collection

Skills

  Proficient with: Python, Java, PostgreSQL, Django, Flask, MATLAB
Experience with: C/C++, Elixir, Celery, Ruby on Rails, MySQL, MongoDB, Riak, AWS EC2/S3/EBS/CloudFormation
   Familiar with: HTML/CSS, Javascript, Angular2, React, MIPS assembly

Personal Projects

  Present **Family Dog Rescue**, volunteer
    2016   **Lyft Bug Bounty**, dicovered and reported a bug allowing unrestricted coupon creation
    2015   **Smaug**, built an invoicing and autoshop management Rails app for Balboa Automotive Service
    2014   **Rap Cloud**, built a rap phrase aggregator build for LinkedIn Hacker Games
    2013   **View Finder**, created a location-based Instagram photo viewer built for Facebook Hackathon