Derek Pham

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🎓 EDUCATION

Northeastern University, Bachelor of Science in Computer Science   Sept. 2016 - Apr. 2021
GPA: 3.97/4.0
Coursework: Algorithms and Data Structure, Networks and Distributed Systems, Large Scale Data Storage
                      Object Oriented Design, Software Development, Programming Languages

⚙ SKILLS

Languages: Java, Python, Kotlin, Clojure, Racket
Systems: PostgreSQL, MySQL, HBase, Kafka, Hadoop, Spark
                      Athena, S3, Glue, Neo4j, MongoDB, Redis
Others: Linux, Spring, Hibernate, Django, Git, Ansible, DropWizard

👥 EXPERIENCE

Yelp, San Francisco, CA   Jun. 2019 - Aug. 2019
Software Engineer Intern - Data Infrastructure

- Created a batch post-processor tool for Yelp's data lake with Apache Spark and AWS Glue, processing half a Terabyte per batch daily
- Simplified Athena and Redshift query patterns, and improved query performance with said tool by around 500x, enabling much quicker decision making for business analysts and data scientists

HubSpot, Cambridge, MA   Jan. 2019 - May. 2019
Software Developer Co-op - Connected Email Backend

- Migrated 2 Redis tables with hundreds of Gigabytes of data to HBase using Apache Hadoop, saving around $100,000 a year
- Redesigned the email scheduling system using MySQL, HBase and Amazon S3, which solved 5 different bugs that caused long-lasting Jiras
- Enforced permission checking on 12 different microservices, improving security of HubSpot's public API

PowerAdvocate, Boston, MA   Jan. 2018 - Jun. 2018
Software Developer Co-op - Data As a Service

- Built from the ground up and completed the Customer Service Report (CSR) product in Spring and Hibernate, saving hundreds of man hours every quarter to build reports
- Designed a Continuous Delivery framework for CSR using Ansible, allowing deploying to production through one simple command
- Led research effort to find a suitable database for CSR, and decided that PostgreSQL was the best fit

⬚ PROJECTS

freddie *A music recommendation app*

- Developed a simple web app in Spring Boot that recommends songs to users based on their music history
- Powered the recommendation and storage engines using Neo4J

doodle *A research project with Northeastern's Network Science Department*

- Developed an app in Django used to study how search ranking affects personal and political opinions
- Designed different CSS skins to mimic Google and Facebook

nualt *An easy-to-use alternative to Northeastern's career website*

- Created a web crawler in Python to mine hundreds of job postings on Northeastern's career website
- Built a simpler and faster website to display job postings using Kotlin, Spring Boot and jQuery