

# ANSHUMAN PATNAIK

## 4th Year Student & Aspiring Software Engineer

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## EXPERIENCE

### Infrastructure Engineer

#### Wish (ContextLogic Inc.)

📅 Winter and Fall 2016

📍 San Francisco, CA

- Established a framework to allow developers to easily denormalize collections through timed migrations.
- Designed and built a framework to execute tools, commands and monitor the entire MongoDB cluster.
- Created a tool to launch a production-ready sharded MongoDB cluster in 5 minutes using AWS, Chef and Python.
- Architected and facilitated a migration of a portion of the existing database cluster to AWS, reducing main cluster load by 30%.
- Validated, automated, and executed two major upgrades on the MongoDB cluster leveraging benchmarking tools and in-house orchestration tools, in conjunction with Chef.
- Improved the robustness of existing infrastructure monitoring tools through increased parallelization and higher fault tolerance.
- Developed a log parsing tool for database logs to analyze and detect bad queries ad-hoc.

### Database Engineer

#### Rubicon Project

📅 Summer 2015

📍 Los Angeles, CA

- Maintained and optimized production MySQL database clusters through tasks such as query optimization, load balancing, and database backup automation.
- Designed and built a dashboard using a Ruby-based framework to display critical system health and current task metrics.

### Research Assistant

#### University of Waterloo

📅 Winter 2015

📍 Waterloo, ON

- Analyzed the short and long term stability of macroeconomic systems by comparing them to existing dynamic physics models.

## PROJECTS

### WaterBud

- A proposed solution to curb household water waste by providing detailed breakdown of water use in a household.
- Designed and built a MVP(Minimal Viable Product) using Raspberry Pi, Tornado, Flask, and Python.

### Monocle

- A real-time MongoDB cluster health visualizer built using d3.js and Flask built at a Wish Hackathon.

## SKILLS

### Programming

Python

BASH

Ruby

C++

MATLAB

Git

### Databases

MongoDB

MySQL

### Infrastructure

Chef

AWS - EC2/S3/CloudFormation

SaltStack

OpenStack

Networking

### Web

Tornado

Flask

Django

HTML/CSS/Javascript

jQuery

## EDUCATION

### Systems Design Engineering

#### University of Waterloo

📅 Sept 2013 - April 2018 (Expected)

- Ranked 11/100 last 2 academic terms
- Cumulative average of 85.06% - 3.9/4.0 GPA

## AWARDS



#### Dean's List Honors

Awarded to top 10% of students in a cohort, ranked 4th in Summer 2014.



#### Engineering Entrance Scholarship

Awarded based on academic achievement.



#### President's Scholarship of Distinction

Awarded for an entrance average greater than 95%.

## INTERESTS

Distributed Systems

Economics

Badminton

Big Data