

# ANSHUMAN PATNAIK

## Software Engineer

✉ a3patnaik@uwaterloo.ca

☎ (519) 574-9852

🌐 linkedin.com/in/a3patnaik

🐙 github.com/patnaa2

## EXPERIENCE

### Infrastructure Engineer

#### Wish (ContextLogic Inc.)

📅 Jan 2016 – Apr 2016, Aug 2016 - Dec 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.
- Built a tool to launch a production ready sharded MongoDB cluster in 5 mins using AWS, Chef and Python.
- Validated, automated, and executed two major upgrades on the MongoDB cluster leveraging benchmarking tools and in-house orchestration tools in conjunction with Chef.
- Improved existing infrastructure monitoring tools through increased parallelization and higher fault tolerance.
- Developed a log parsing tool to analyze database logs to detect bad queries ad-hoc.
- Optimized existing linters to statically analyze queries and warn/hint users about missing indexes and bad queries.

### Database Engineer

#### Rubicon Project

📅 May 2015 – Aug 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/task metrics.

### Research Assistant

#### University of Waterloo

📅 Jan 2015 – Mar 2015      📍 Waterloo, ON

- Analyzed the short and long term stability of macroeconomic systems using dynamic physical 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 using Rasperry Pi, Tornado, Flask, and Python.

### Monocle

- A real-time MongoDB cluster health visualizer built using d3.js and Flask.

## SKILLS

### Programming

Python BASH Ruby C++  
Matlab Git Latex

### 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 – Current

- Candidate for Bachelors of Applied Science - 2018 Expected
- Ranked 11 last 2 academic terms
- Cumulative average of 85.06

## AWARDS



#### Dean's List Honors

Awarded to top 10% of students in class based on academic merit, ranked 4th in Summer 2014



#### Engineering Entrance Scholarship

Awarded to students based on academic achievement



#### President's Scholarship of Distinction

Awarded to Students with entrance average greater than 95%

## INTERESTS

Distributed Systems Economics  
Badminton