

# ANSHUMAN PATNAIK

## New Grad & Aspiring Software Engineer

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## EXPERIENCE

### Technical Project Manager/Software Engineer Intern

#### A9.com - Advertising Technology

📅 Summer 2017

📍 Palo Alto, CA

- Investigated potential sources of errors in forecasting for an advertising program through data analysis and talking to relevant stakeholders.
- Developed a roadmap and established product requirements and design for the above forecasting product.
- Created an ETL pipeline to aggregate data from multiple sources to report on advertising supply metrics.
- Built a dashboard using Angular and Spark to surface insights about a new advertising delivery pattern.

### 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 leveraging an experiment framework.
- 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.

## 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 Raspberry Pi, Tornado, Flask, and Python.

## SKILLS

### Programming

Python BASH Ruby MATLAB  
Git Scala

### Databases

MongoDB MySQL Redshift

### Infrastructure

Chef AWS - EC2/S3/CloudFormation  
SaltStack OpenStack Networking

### Web

Tornado Flask Django  
HTML/CSS/Javascript jQuery

## ACADEMIC EXPERIENCE

### 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.

## EDUCATION

### Systems Design Engineering

#### University of Waterloo

📅 Sept 2013 – April 2018 (Expected)

- Ranked 6/62 last academic term.
- Cumulative average of 85% - 3.9/4.0 GPA
- Dean's List Honors in Spring 2014 Term.

## INTERESTS

Distributed Systems Economics  
Machine Intelligence Ed-Tech  
Badminton