

ANSHUMAN PATNAIK

Software Engineer

✉ a3patnaik@uwaterloo.ca

☎ (519) 574-9852

🌐 [linkedin.com/in/a3patnaik](https://www.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 and current task metrics.

Research Assistant

University of Waterloo

📅 Jan 2015 – Mar 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 using Rasperry Pi, Tornado, Flask, and Python.

Monocle

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

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 Big Data