

# Prajna Kandarpa

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## ABOUT

Mechatronics (Robotics) Engineer with expertise in data pipelines, machine learning and full stack development. I'm eager to show the potential of data science to improve process efficiency, detect hidden trends, model organizational risks and predict engineering failures in any industry.

## EDUCATION

### UNIV. OF WATERLOO

BACHELOR OF APPLIED SCIENCE IN

MECHATRONICS ENGINEERING

May 2016 | Waterloo, Canada

Internships: 7 | Experience: 3 years

## SKILLS

### LANGUAGES

Extensive:

JavaScript • R • Python • HTML/CSS

MATLAB • Bash

Comfortable:

Go • Spark • Hadoop • C • Objective-C

Java • Typescript

### TECHNOLOGIES

Extensive:

Node.js • Git • Linux

Emacs • docker • rancher • Amazon Web Services

LaTeX • Flask • PostgreSQL • MySQL

Comfortable:

Django • XCode • DevOps • AngularJS •

## LINKS

GitHub : [github.com/prajnak](https://github.com/prajnak)

Linkedin : [linkedin.com/in/prajnak](https://linkedin.com/in/prajnak)

Website : [prajis.me](https://prajis.me)

## COURSEWORK

### UNDERGRADUATE

(MTE 262) Microprocessors and Digital Logic

(MTE 241) Computer Structures and

Real-time systems

(MTE 320) Actuators & Power Electronics

(MTE 360) Automatic Control Systems

(SYDE 575) Image Processing

(SYDE 372) Pattern Recognition

(SYDE 522) Machine Intelligence

(SYDE 552) Computational Neuroscience

## EXPERIENCE

### SENIOR ENGINEER | DATA ENGINEERING @ COGNITIVESCALE INC.

April 2017 - present | Hyderabad, India

- Mentored new employees on NodeJS, Python and data analysis best practices
- Developed backend data pipelines using NodeJS and Python
- Used MongoDB, Redis and PostgreSQL(via SQLAlchemy and sequelize-js) as data stores
- Integrated various NLP techniques for named entity extraction using NLTK, StanfordNLP and spaCy from wikipedia knowledge graphs
- Deployed applications serving ML insights via microservices on Rancher

### FULL STACK ENGINEER | DATA SCIENCE @ ACERTA ANALYTICS

July 2015 - Dec '15, Jun '16 - Dec '16 | Waterloo, Canada

- Designed and built web apps, backend services, machine learning models and data processing pipelines during a 14 month stint as **Employee #1**
- Worked in **Javascript, Python (scikit-learn), R(stats, dplyr), Go(fasthttp)**
- Trained new employees in R and Python for data modelling and visualization
- Project scope finalizations with Fiat Chrysler engineers to deliver solutions for their data analytics

### RESEARCH ASSOCIATE | DATA SCIENCE @ UNIV. OF WATERLOO

June 2016 - Dec 2016 | Waterloo, Canada

- Developed techniques for unsupervised and supervised anomaly detection in time series big data collected from automotive and aeronautical systems

### FULL STACK ENGINEER | VIDEO STREAMING | OS X @ UBIQ, INC.

March 2015 - June 2015 | Waterloo, Canada

- Built an OS X application for streaming wirelessly to enterprise meeting rooms
- Improved streaming latency by **80%** and worked in Objective-C, C, Cocoa and Xcode
- Provided **customer support** as well as **on site product installations**

### DIAGNOSTICS ENGINEER | HARDWARE TESTING @ ARISTA

NETWORKS

May 2014 - December 2014 | Santa Clara, California

- Created software based hardware test automation of a new gigabit ethernet switch
- Collaborated with Hardware, Software and Bootloader teams

Fullwork history available on my **Linkedin** : [linkedin.com/in/prajnak](https://linkedin.com/in/prajnak)

## PROJECTS

### TALON SEP 2015 - MARCH 2016 |TALONCO.GITHUB.IO

- An add-on kit for delivery trucks that enables drone deliveries without massive capital requirements
- Responsible for Radio communications, flight controller tuning and backend

### CROP YIELD PREDICTION FEB 2016 - MAR 2016 | LINK TO PAPER

- Used Neural Network architectures to predict crop yields in India from a dataset containing meteorological and geographical features