Prajna Kandarpa

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ABOUT

Mechatronics (Robotics) Engineer with expertise in big data, machine learning and full stack web 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 • AngularJS • Git • Unix
Emacs • docker • Amazon Web Services
LaTeX • PostgreSQL • MySQL
Comfortable:
Django • Flask • XCode • DevOps

LINKS

GitHub: **github.com/prajnak**
Website: **prajis.me**
Blog: **prajis.me/blog**

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

FULL STACK ENGINEER | DATA SCIENCE @ Acerta Systems 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
- Forward facing role included interactions with Fiat Chrysler engineers to scope out and 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
- Mainly used **R, Python, Apache Spark and LaTeX**

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 to ensure project delivery

SOFTWARE DEVELOPER - R&D| AGILE | SCRUM @ Trapeze Group

Sep 2013 - Dec 2013 | Mississauga, Canada

- Built a dashboard to provide project managers insight into their code repository statistics for tracking usage and feature creep
- Used Java Servlets, Grails (MVC framework) and Javascript

PROJECTS

TALON Sep 2015 - March 2016 |talonco.github.io

- Final year team design project where we built an add-on kit for delivery trucks that enables drone deliveries without massive capital requirements
- Responsible for Radio communications, flight controller tuning and web services

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
- Data was cleaned, modelled and visualized using **R(dplyr, caret, ggplot2), LaTeX**