

PRAJNA KANDARPA

I'm well-versed in software development, web development, audio visual media development and am in the process of honing my machine learning based data analysis skills. I also have more than a passing interest in the fields of social sciences and psychology. I'd like to work in a position where I would be able to utilize these skills while being able to learn new ones in any domain.

WORK EXPERIENCE

JULY 2015 – DECEMBER 2015

WEB APPLICATION DEVELOPER

ACERTA ANALYTICS, WATERLOO, ON

Develop and maintain our web application, create responsive data visualizations for the web. Investigate and develop techniques to sample huge time series datasets for data visualization. Redesigned and implemented the web application for our main product using Bootstrap and AngularJS. Check us out at Acerta.ca

MARCH 2015 – JUNE 2015

FULL STACK ENGINEER

UBIQ, INC., KITCHENER, ON

Developed a low latency desktop streaming module for enterprise meeting rooms in C and integrated it into our OS X application. Developed APIs for embedded device networking and communication in Python, Ruby on Rails and Objective C. Refactored and documented web applications and backend services, data store services that run on AWS, Raspberry Pi. Worked as part of a four member engineering team that spent a lot of long hours working with complex software libraries for video/audio processing.

MAY 2014 – DECEMBER 2014

DIAGNOSTICS ENGINEER

ARISTA NETWORKS, SANTA CLARA, CA

Assisted the hardware team, developed software based automation of PCB verification and manufacturing test system verification as part of the Diagnostics team. Used standard system communication protocols like SMBus, I2C and JTAG to facilitate communication between components on the PCB. Added features to the manufacturing test automation infrastructure, written using Python Django. This position helped me learn PCB design verification and board state management through sensor and bus monitoring.

SEPTEMBER 2013 – DECEMBER 2013

SOFTWARE DEVELOPER

TRAPEZE GROUP, MISSISSAUGA, ON

Worked on multiple web applications that co-relate product development history with code repository statistics. Used Subversion Java API, Java Servlets and the Grails application framework. Improved page load times, database performance and cleaned up internal APIs.

JANUARY 2013 – APRIL 2013

WEB PLATFORM ENGINEER

MORGAN STANLEY FINANCIAL SERVICES, MONTREAL, ON

Developed document lifecycle workflows for TWiki, a wiki application used as a knowledge base. Gained in-depth knowledge of wiki applications' network configuration, load balancing techniques and site mirroring. Wrote plugins in Perl to implement Document Review workflows based on LDAP User, Group ACLs. Collaborated with team members from New York, Shanghai and Tokyo during an iterative design process.

41 Pineslope Cres., Scarborough, ON M1E4M5
+1 (226) 606 3566
spspkand@uwaterloo.ca
<http://github.com/prajnak>

SOFTWARE SKILLS

LANGUAGES	R, Javascript, Objective-C, C, Python, Java, MATLAB
TOOLS	emacs, git, tmux, gdb, LaTeX, Xcode, PostgreSQL, MySQL
PLATFORMS	OS X, Linux, Windows, ArduCopter
FRAMEWORKS	NodeJS, D3.js, FFmpeg, SailsJS, Django, AngularJS, Bootstrap
DESIGN	HTML, CSS

EDUCATION

2010 – 2016	University of Waterloo BASC. IN MECHATRONICS ENGINEERING Waterloo, ON
-------------	------------------------------------------------------------------------------------

COURSES & PROJECTS

2016	Modularized Drone Kit For Delivery Vehicles (QuetzalCo) My team and I designed and built an add-on kit for delivery vehicles that can enable drone deliveries with integrations for existing warehouse management systems. The kit provides automated package loading and drone takeoff, landing for drones. This project was to fulfill our final year design project requirements.
2016	Course - Computational Neuroscience Study the neurobiological systems that make up the brain and central nervous system. Simulate such systems using convolutional and deep neural networks.
2016	Course - Machine Intelligence A study of the informational and mathematical theory behind artificial intelligence techniques such as Bayesian framework, fuzzy logic, trajectory-based and population-based metaheuristics, decision trees, neural networks and reinforcement learning
2015	Course - Image Processing A study of the human visual system, frequency/spatial domain image enhancement, image restoration, color image processing, compression and image segmentation
2014	Autonomous Speed Boat In this group project, our team built an autonomous miniature speedboat controlled using an Arduino board. The boat uses infrared sensors for path detection and feedback control. The hull is 3-d printed with fibreglass epoxy coating to counteract the porous 3d printing material. Responsible for runtime software and control system implementation.