

# BURDE PRERANA KAMATH

✉ [bkamath@uemail.iu.edu](mailto:bkamath@uemail.iu.edu) ☎ 812 955 1678 📍 1750, N. Range Road, Bloomington, IN 🧑 [preranakamath](#) in [prerana.kamath](#)

## OBJECTIVE

To obtain an internship that utilizes my computer science knowledge and analytical skills culminated with an optimistic attitude to gain career experience in Computer Science.

## EDUCATION

**Indiana University**, Bloomington, IN

May 2018

*Master of Science in Computer Science, CGPA: 3.5/4.0*

**BITS - Pilani**, Dubai, United Arab Emirates

June 2016

*Bachelor of Engineering in Computer Science, CGPA: 8.26/10.0*

*Leadership: Captain of the Table Tennis team 2012-2016, Captain of the Volleyball team 2015-2016*

*Core member and editor for ACM.*

## TECHNICAL SKILLS

**Programming Languages:** Python, R, C, C++, Java, HTML5, CSS, JavaScript, and JQuery

**Tools/Applications:** Eclipse, Spring, Hibernate, R Studio, WordPress, Pycharm, and NetBeans

**Database:** MySQL

## EMPLOYMENT

**Levtech Consulting | Intern | Dubai, UAE**

June 2014 – August 2014

- Worked with Microsoft Dynamics on CRM and leveraged their dynamics product suite.
- Created case studies to acquire customers and resolve business intelligence problems such as storing data securely.
- Constructed cloud solutions to track production and the risks associated.
- Customized the Microsoft Dynamic tools for different customers.

## PROJECTS

**Mental Health Analysis on Twitter**

April 2017

- Mined mental health data using twitter API.
- Determined the severity of the tweets in specific geo-locations to predict required help, using sentiment analysis.
- Modelled multiple linear regression to find the help required in geo-locations using retweet and favorite count.

**Xinu Operating System**

February 2017

- Solved synchronization issues such as producer-consumer, dining philosophers and readers-writers using mutex.
- Implemented conditional variables to synchronize access to shared resources using the test-and-set instruction by disabling and restoring the interrupts.
- Programmed the process ring conditions: deadlock, infinite loop and race condition.

**e-Commerce website**

December 2016

- Launched an E-Commerce website to encourage young entrepreneurs financially and attract investors looking to invest in innovative startups.
- Developed a kick starter-style web app using JAVA, Spring, Hibernate, SQL, using waterfall model.
- Designed the wireframe for front-end using Bootstrap.

**Neural networks**

December 2016

- Implemented a fully connected feed forward neural network to classify image orientation.
- Modeled and trained the neural network using the backpropagation algorithm, using gradient descent.

**Probabilistic Models**

November 2016

- Built a model based on the Naïve Bayes algorithm to classify spam mails.
- Generated Part of Speech tagger using Bayes Net, Hidden Markov models and the Variable Elimination algorithm.

**Randomized vs Deterministic Algorithms**

October 2016

- Compared the classification accuracy of Random Forests versus KNN.
- Analyzed the running time of Randomized Quicksort versus Quicksort with increasing dataset sizes.

**Comparative analysis of the K-Nearest Neighbor**

December 2015

- Assessed the accuracy and the running time of KNN on R, RSpark and Python using the EC2 instances.
- Demonstrated that RSpark had the best running time while Python learnt the dataset better.

## RESEARCH WORK

**Indiana University | Summer Research Intern | USA, Bloomington**

May 2017 - Present

- Building human like intuition in embodied machines under Prof. Eduardo J. Izquierdo in the field of cognitive sciences.
- Developing and programmed a Microbial Genetic Algorithm to help in evolution.
- Programming recurrent continual neural networks to imitate neurons in the human brain.
- Merging the genetic algorithm with the neural network to imitate human learning.
- Embodying the network built into a machine for testing.