

## Chirag Bumb

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### **EDUCATION:**

Masters' of Science, Computer Software Engineering, Arizona State University, Tempe, AZ  
B.Tech, Information Technology, Thadomal Shahani Engineering College, Mumbai.

Expected: May 2019  
June 2017

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### **TECHNICAL SKILLS:**

Web Technologies: HTML5, CSS3, JavaScript, Bootstrap, MongoDB, Express, NodeJS, Angular.js, JQuery.

Programming Languages: C, C++, C#, Java, Python, Prolog, Scheme.

Mobile Development: Android.

Relevant Courses: Big Data Analysis, Data Mining, Advanced Data Structures and Algorithm, Mobile Computing, Software Design, Emerging Languages and Program Paradigms.

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### **PROFESSIONAL EXPERIENCE:**

**Instructional Designer Assistant**, Edplus at Arizona State University (June 2018 -Current)

- Working as an Instructional Design Aide at EdPlus at Arizona State University.
- Collaborate with instructional designers and multimedia developers on quality assurance and design-related projects.
- My work is to primarily assist with course development and educational technology for open course initiatives in diverse subject areas.

**Web Developer**, APKG Pvt Ltd (June 2014 – June 2015)

- Collaborated within an Agile team structure where I assisted with developing code using technologies as: JavaScript.
- Developed front-end web application using HTML/CSS and JavaScript.
- Redesigned and developed an existing web sites. Assisted team with testing code in multiple browsers.

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### **PROJECTS:**

**Detection of different ASL actions:**

- Performed feature extraction and feature selection using PCA to classify different ASL actions on data of recorded video of a person who is performing actions wearing the Myo armband and Kinect band.
- Designed classification machines to separate these actions using techniques such as Decision tree, SVM and neural networks by making use of training and testing data sets.

**Electroencephalogram:**

- Developed a mobile application in which the user is identified via identification process and later authenticated by the process or action proving genuine or valid.
- The data was stored on Fog server as well as Cloud server.
- Different supervised machine learning algorithms such as K-NN, Naive Bayes, Decision trees, SVM were computed on the data.

**Chatting Application:**

- Developed an android application on Android IDE.
- Stored all the chats data as well as user registration data on FireBase- Google Database.

**AASAN – A programming Language**

- Designed Lexer and Parser for our language using ANTLR library.
- Generated Intermediate Code using Java.
- Designed runtime environment using Python.

**Personalized New Recommendation System:**

- Developed Python scripts to recommend news articles to the user based on their Twitter profile.
- RSS feeds of various news API were used for the collection of various articles.

**Security Systems in Automobiles:**

- Designed an all-inclusive integrated technology which enhances the safety features of automobiles.
- Implemented the Driver Drowsiness Detection module using Java where the images were converted from camera to binary image using binarization.
- Alcohol Detection system was implemented using MQ303A sensor.
- Implemented Collision Detection system using ultrasound sensors: HC-SR04.
- All the modules were integrated using Raspberry Pi.