# ANUNDHARA CHIMMAD

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#### OBJECTIVE

Anundhara is a Software Development Engineer and an aspiring Data Scientist. She has two years of experience in software design and development. Also, a year and a half worth industry experience in Data Science and Machine Learning. Strong interpersonal skills, readiness to learn are her proficiencies. She succeeds at analyzing requirements and delivers with minimum supervision. Currently, she is seeking an admission to doctoral studies become a academic researcher and a valuable professor.

#### Professional Experience

## Software Development Engineer

Sep 2017 – to present

Integra Technologies, Bellevue, WA

- Develop and test features for RKernel and Teammates open source projects using Java
- Threat identification for proposed solution and prepare test case scenarios
- Document effort estimation plan for new features, feature enhancements and develop test plans
- Utilize test driven development approach to deliver commercial quality code.

Tools: IntelliJ, MySQL, Anaconda framework, MS Onenote

## Software Engineer

July 2016 - Sep 2017

Edifecs, Bellevue, WA

- Primary developer to gather and analyze business requirements from client meetings
- Document fitgap analysis report with proposed architecture and design
- Develop custom solution with routes and maps using Smart Trading components
- Implement messaging service queue using Apache ActiveMQ and Java
- Automate installation process of product solution using Groovy

Tools: Apache ActiveMQ, MySQL, XEngine, XEngineServer, Transaction Management, Windows SQL Server

#### Software Engineer Intern

Feb 2016 - July 2016

Edifecs, Bellevue, WA

- Develop analytics models using feature engineering and visual analytics for high cost risk patient identification, risk adjustment and medical claims rejection use cases by applying machine learning algorithms.
- Perform feasibility analysis of reporting solutions like Tableau, Jaspersoft and XBoard fork
- Customize XBoard fork to build interactive and dynamic reports for the implemented model Tools: RStudio, MySQL, DevExpress, AngularJS, XEngine, XEngineServer, Transaction Management, Windows SQL Server

Web Developer Apr 2015 – Sep 2015

F5 Networks, Seattle, WA

- Redesign transition and flow of existing customer support portal
- Develop a new custom, single-page, cross browser, responsive web application
- Implement methods to reuse cached HTTP responses for future offline access and requests.

Tools: IntelliJ, REST, Bootstrap CSS, AngularJS, Karma, SoapUI

## Research

 $\begin{tabular}{l} \textbf{IEEE Publication} & Assessment of Healthcare Claims Rejection Risk using Machine Learning Sep 2016 – Dec 2016 \\ & Software Engineer, Edifecs, Bellevue WA \\ \end{tabular}$ 

- Investigate factors causing increased medical claim rejection
- Design and implement a model using classification tree, support vector machines and logistic regression algorithms
- Using the model, categorize the claims as accepted or prone to rejection per number of rejection ICD codes
- Infer factors such as ICD codes, plan cost and member age influence medical claims denial rate
- Propose additional attributes to the dataset to reduce the rejection rate
- Reduce medical coder's manual interruption in the state-of-the-art medical claims lifecycle.

Tools: RStudio, Git, Tableau

Citation: Saripalli, P., Tirumala, V. and Chimmad, A., 2017, October. Assessment of healthcare claims rejection risk using machine learning. In e-Health Networking, Applications and Services (Healthcom), 2017 IEEE 19th International Conference on (pp. 1-6). IEEE.

Risk Adjustment Analysis using Machine Learning, Software Engineer Intern, Edifects, Bellevue WA Feb  $2016 - Oct\ 2016$ 

- Analyze drawbacks of the state of the art risk adjustment model
- Design a new learning model using demographic and diagnostic information
- Determine risk score involving plan enrollees and plan value
- Demonstrate accuracy of expected plan liability for enrollee medical expenditures
- Implement classification tree, support vector machines algorithms on anonymized dataset
- Results drawn from models over three stages of improved dataset provided reduced risk scores Tools: RStudio, Git. Tableau

Analysis of High Cost Risk Patient using Machine Learning

Oct 2016 - Dec 2016

- Software Engineer Intern, Edifecs, Bellevue WA
- Analyze dataset obtained by Center of Medicare and Medicaid Services
- $\bullet\,$  Scrub the dataset to eliminate anomalies and incomplete records
- Determine factors for increased cost for members of a healthcare insurance plan
- Results derived showed improved accuracy in identifying enrollees with high cost *Tools: RStudio, Git, Tableau*

#### EDUCATION

San Diego State University • San Diego, CA

Aug 2013 – Dec 2016

Master of Science • Computer Science • GPA: 3.4/4

Visvesvaraya Technological University • Belgaum, India Bachelor of Engineering • Computer Science • GPA: 3.8/4

Aug 2009 - May 2013

## Thesis

## Database Management System for Uncertain and Probabilistic Data

Aug 2015 - Jan 2016

- San Diego State University, San Diego CA
- Propose a probabilistic database management system as an extension to relational database systems
- Analyze query and update language for probabilistic data and approximate query processing system MayBMS framework, PostgreSQL, MySQL, RStudio

## Technical e-mail Notification System

Jan 2013 – May 2013

- Visvesvaraya Technological University, Belgaum, India
- Extract event information like technical conferences, workshops, seminars using web crawlers
- Design a user interface to link crawled data to the website HTML, CSS, Apache Tomcat, MySQL, Windows SQL Server

## TECHNICAL SKILLS

- Programming languages: Java, R, JavaScript, Python, C-Sharp, Groovy
- IDE: IntelliJ, RStudio, PyCharm, Eclipse
- Platforms & frameworks: Anaconda, AngularJS, Spring, Tensorflow
- Front-end technologies: HTML, CSS, RESTful APIs, JSON, XML
- Databases: MySQL, PostgreSQL
- Operating systems: Windows, OS X, Linux
- Source control: Git, BitBucket, SVN
- Software experience: Adobe Dreamweaver, MS Office Suite
- Learning: Tensorflow, Spring, Design patterns, Dependency Injection, Automated testing

#### Extra Curricular Activities

- Volunteer at Seattle Humane Society
- $\bullet\,$  Event organizer and volunteer at She Coding and SDE Skills
- Member of Pacific North West hiker club
- Open source contributor on GitHub and Kaggle

### PERSONAL ATTRIBUTES

Attentive listener, avid reader, quick learner, knowledge enthusiast, and creative.