# ABHISHEK DINKAR RAUT

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#### **EDUCATION**

Binghamton University, State University of New York

Master of Science in Computer Science

Sant Gadge Baba Amravati University, Amravati, India

Bachelor of Engineering in Electronics and Telecommunication Engineering

August 2017-May 2019 GPA: 3.35/4.00 August 2010-May 2014

GPA: 4.00/4.00

## **TECHNICAL SKILLS**

- Java, Python, C#, C++, C, PL/SQL, HTML, CSS, JavaScript
- NET Framework, Spring Framework, Ruby on Rails, Node.js, React, Redux, SOAP, REST, MS SQL Server, PostgreSQL, SQLite, MongoDB
- Microsoft Azure, Google Cloud Platform, AWS, TensorFlow, Docker, Kubernetes, Selenium, Maven, Ant, Git, TFS, Shell
- Agile Methodology, Scrum, Maintenance, Debugging, SDLC, TDD, CI/CD pipeline, Microservices, Client-facing, Leadership, Artificial Intelligence (Four Research publications)

## **EXPERIENCE**

## Live in Bing, Binghamton, NY

May-August 2018

Data Science Intern

- Built a web application and neural network model for processing real estate data to predict property rent for incoming international university students using Python, React, Flask, SQLite, Keras, and TensorFlow
- Facilitated 1200+ international students in search of off-campus housing in the US by providing house rent estimation

#### Last Minute Preparation, Amravati, India

December 2015-July 2017

CEO and Founder

- Collaborated with a cross-functional team of seven individuals to provide software training to 600+ undergraduate engineering students and achieved 250+ IT job placements
- Developed an eLearning website with features for Authentication, Enrollment, Payment Processing, Student Evaluation, and Feedback using HTML, CSS, JavaScript, jQuery, AJAX, and C# over ASP.NET MVC5

#### Infosys Limited, Mysore, India

December 2014-December 2015

Systems Engineer

- Developed and provided support for LOB applications of Infosys's Document Management System and achieved a client rating of 5.8/6.0
- Provided full life cycle support to the Infosys HR client from initial client interaction and requirement analysis through design, coding, testing, debugging, software implementation, and integration
- Developed Maker-Checker Browser for Infosys's claims processing workflow with features for Document Management, Profile Management, Audit Trail, and Reports
- Reported and rectified user's large file upload issues on the SharePoint applications, which was affecting the entire user base of 5,800 users
- Developed Large File Upload Client from scratch an FTP client to upload files to the server with size above 40 MB
- Skills Used: .NET Framework, Microsoft SQL Server, Java, Python, C#, SQL, HTML, CSS, JavaScript, jQuery, and AJAX

#### **PROJECTS**

## Non-rigid Medical Image Registration System using Deep Learning

February 2018-December 2018

- Research Project, Professor Dr. Weiying Dai's Lab, Binghamton University, NY
  - Built a Registration Framework (Python) based on a Convolutional Neural Network that directly learns transformations between pairs of three-dimensional images without the need of manually annotated ground truth deformation information using Keras with a TensorFlow backend
  - Achieved fast transformation estimation result in 180 milliseconds (average) on an NVIDIA GTX Titan X GPU with Pearson's correlation coefficient of 0.94 mm (x), 0.88 mm (y), and 0.49 mm (z) displacements between the ground truth and estimation for 300 pair of images of ADNI dataset

#### **GPS Coordinates Emergency Alert Application**

August 2018- December 2018

Academic Project, Binghamton University, NY

- Developed an Android application with functionality to send a location alert message while saving critical time during an emergency
- Used Accelerometer sensor and Kalman Filter algorithm to recognize shake gesture and Google Fused Location Provider API for location data

#### **Recommender System**

January 2018-May 2018

- Academic Project, Binghamton University, NY
  - Developed a recommender system (Java) using the Item-based Collaborative filtering and Adjusted cosine similarity to compute the item similarity
  - Achieved low 0.9 root mean squared error for the MovieLens Dataset of 1 million entries by implementing Weighted sum approach for prediction

## **Smart Gas Stove**

January-February 2014

- Research Project, Massachusetts Institute of Technology (MIT) Media Lab, Mumbai, India
  - Designed a Smart Gas Stove with smartphone functionality for burner dial settings and timer using Raspberry Pi to control servo motor by Android
    application over Wi-Fi
  - Achieved a 30% increase in cooking time efficiency and a 20% decrease in monthly expenditure for Dharavi catering businesses

## **Control Model of Adaptive Headlight System**

August 2012-December 2013

- Independent Work, IETE Cynosure (ICCEEE-2013), Lonere, India
  - Developed an economical Adaptive Headlight Microcontroller based system (C++) to adjust the automobile's headlights to the road curves based on steering rotation using the CAN bus protocol
  - Awarded the Institution of Electronics and Telecommunications Engineers (IETE) Mumbai Centre's Young Researchers Award (selected from 110 national and international researchers)