ABHISHEK DINKAR RAUT

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EDUCATION

Binghamton University, State University of New York — August 2017 - May 2019
Master of Science in Computer Science — GPA: 3.35/4.00

Sant Gadge Baba Amravati University, Amravati, India — August 2010 - May 2014
Bachelor of Engineering in Electronics and Telecommunication Engineering — GPA: 4.00/4.00

SKILLS

Languages: Java, Python, C#, C++, C, HTML, CSS, JavaScript   **Databases:** Oracle, Microsoft SQL Server, MySQL, SQLite, PostgreSQL, MongoDB
Frameworks: .NET, Spring, React, Flutter, Django, TensorFlow, Junit   **Tools:** Jenkins, Docker, Kubernetes, Git, Jira, Coverity
Research: Published Research papers in Computer networks, WSN, and the Artificial Intelligence field: tinyurl.com/citationsar

EXPERIENCE

Gainwell Technologies LLC — January 2020 - present
Professional Programmer Analyst — El Paso, TX
- Developed robust software solutions, test cases, and documentation for the Nevada Medicaid System
- Reconstructed the Medicaid Management Information Systems (MMIS) program by transforming it from Java to a more efficient embedded SQL C program, resulting in a 79% performance improvement
- Spearheaded the migration of the claims batch application workload from Unix to Linux, facilitating the transition from on-premises data centers to AWS Cloud, resulting in a 15% cost reduction through resource optimization
- Mitigated critical defects in the Provider Enrollment Portal, safeguarding the operations of over 130,000 healthcare providers

Last Minute Preparation — December 2015 - July 2017
CEO and Founder — Amravati, India
- Led a cross-functional team of seven individuals, providing software training to over 600 students and achieving 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 — December 2014 - December 2015
Systems Engineer — Mysore, India
- Developed and supported LOB applications for Infosys's Document Management System, earning a client rating of 5.8/6.0
- Developed a Maker-Checker Browser for Claims processing workflow with features for Document & Profile Management, Audit Trail, and Reports
- Identified and rectified the large file upload issues on the SharePoint applications, which was affecting the entire user base of 5,800 users
- Developed a Large File Upload Client from scratch using the File Transfer Protocol to upload files to the server with a size above 40 MB

PROJECTS

Non-rigid Medical Image Registration System Using Deep Learning — February 2018 - December 2018
Research Project, Research Assistant, Professor Dr. Weiying Dai's Lab, Binghamton University — Binghamton, 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 for 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 — Binghamton, 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 — Binghamton, NY
- Developed a recommender system (Java) using 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 a Weighted sum approach for prediction

Smart Gas Stove — January 2014 - February 2014
Research Project, Massachusetts Institute of Technology (MIT) Media Lab — Mumbai, India
- Designed a Smart Gas Stove with smartphone functionality for burner dial control and timer using Raspberry Pi to control servomotor 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 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 - 2013 (selected from 110 national and international researchers)

PATENTS

Australia Patent 2021104107, "**A Method for Empirical Risk Assessment of Brain Disorder using Neural Network Diagnostic System**" July 13, 2021