Ameya Nandakumar Potey

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Results-driven Software Engineer with 2.5 years of experience in strategic problem-solving and full-stack development

Education

Master of Science in Computer Science (4.0/4.0) — Dec 2022
The University of Texas at Dallas — *Dallas, TX*

Bachelor of Technology in Mechanical Engineering — Jul 2018
National Institute of Technology — *Tiruchirappalli, India*

Technical Skills

Languages: Java, Python, C/C++, SQL, Matlab, JavaScript, Bash, HTML/CSS
Tools and Frameworks: Java EE, React, Node.js, JUnit, SpringBoot, Kafka, Docker, Git

Experience

Software Development Engineer — Jul 2018 – Dec 2020
Citicorp Services India Pvt Ltd. — *Chennai, India*

- Single-handedly built an inter-platform messaging micro-service from scratch using SpringBoot framework, capable of consuming messages from multiple messaging protocols like KAFKA, gRPC and similarly transmitting it to the required destination.
- Developed an application for tracking and monitoring the vital performance metrics of the Stored Procedures of Database intensive applications of Citi, thus reducing response time and improving latency diagnosis.
- Built a system to reconcile FX sales data from across multiple source systems into a single streamline, resulting in reduction in the data mismatch across source systems by over 80%.

Research Assistant — Jan 2018 – May 2018
National Institute of Technology — *Tiruchirappalli, India*

- Analyzed the gait parameters (stride length, joint angles, ground reaction forces and energy expenditure) of over 50 healthy subjects chosen at random to determine their ideal values.
- Devised an algorithm to quantitatively determine the deviation of gait parameters from their ideal values in orthopaedic patients.
- Designed, simulated and fabricated a custom spring loaded crutch for patients with the required left and right ground reaction forces for faster recovery.

Projects

SONAR Dashboard | *Java, Maven, Vue JS, Typescript, Git* — Mar 2020 – Dec 2020

- Modularized and redesigned a part of the front-end of Citi's Global Data Mining Engine(GDM) to reformat data visualisations to streamline data flows using Vue.js and Java EE.
- Helped reduce system latency by over 20% by optimizing the work-flow for the legacy application, helping business make faster and more effective decisions.
- Reduced inter-dependencies between different components of the system by around 15%, thereby resulting in fewer roadblocks even in case of outages.

Application Of Data Analytics in Marketing Research | *IBM SPSS* — May 2017 – Jul 2017

- Worked on a project to analyze and statistically review data and apply its principles to marketing research, by gathering data from around 1500 subjects and finding dependencies among the involved variables.
- Derived direct and indirect correlation and/or cause-effect relationships between the involved variables using multiple tests like t-test, ANOVA and Bi/Multi-variate regression analysis to determine the variables which positively/negatively impacted the subjects' response the most to a given scenario.

Mathematical Model of a Flapping Wing | *Matlab* — May 2016 – Jul 2016

- Worked on mathematical modelling of the flight parameters of a flapping wing of bird using numerical methods.
- Solved for the lift and drag of any custom geometry using MATLAB and extended the same concept to simulate the dynamics of a bird wing in-flight.
- Iteratively improved the accuracy of the results obtained by more than 30% by consistently reducing the finite element size to reflect the real world values of lift and drag of the bird wing.