Ameya Nandakumar Potey

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Education

The University of Texas at Dallas — Dallas, TX
Master of Science in Computer Science — *Jan. 2021 – Dec 2022*

National Institute of Technology — Tiruchirappalli, India
Bachelor of Technology in Mechanical Engineering (8.15/10) — *Aug. 2014 – Jul 2018*

Experience

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

- Single-handedly built an inter-platform messaging micro-service from scratch, 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* — March 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.
- 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 – July 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 the 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.

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, MS Office