Blessy Boby

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EDUCATION

University at Buffalo, The State University of New York — Buffalo, NY
Master of Science in Computer Science and Engineering — Expected December, 2023
- Relevant Coursework: Introduction to Machine Learning, Algorithms Analysis and Design, Computer Security, Computer Architecture, Data Models and Query Languages, Blockchain

College of Engineering Trivandrum, APJ Abdul Kalam Technological University — Trivandrum, India
Bachelor of Technology in Computer Science and Engineering — July, 2019

EXPERIENCE

Roswell Park Comprehensive Cancer Center — Buffalo, NY
Research Apprentice — June, 2023 – Present
- Analyzed differential gene expression from bulk and single-cell **RNA-seq**uencing experiments using R, **Bioconductor**, and Python, integrating data with clinical outcome data to find novel druggable targets in pancreatic cancer.
- Conducted in-depth analysis of differential expression patterns of CPSF3 and MBLAC1 genes, utilizing data from multiple published papers and the National Center for Biotechnology Information.
- **Identified outliers** in data, highlighting the need for further investigation and content review before accepting research findings for publication.

Bosch Global Software Technologies PVT LTD — Coimbatore, India
Software Engineer — July, 2020 – July, 2022
- Conceptualized and implemented a custom library to monitor utilization of C# tools used company-wide, **enhancing online and offline tracking capabilities.**
- Created custom enterprise-grade software tools catered specifically for calibration engineers, significantly enhancing efficiency, and accelerating the calibration analysis process by an impressive **50%.**
- Operated under **Agile** and **Scrum** frameworks and collaborated using **Git** and **Sourcetree** within the organization.
- Organized monthly team-building activities to foster effective communication and maintain a vibrant work environment.
- Facilitated comprehensive onboarding and training of new team members, imparting knowledge on company policies, team projects, and tech stack to ensure smooth integration into the organization.

Associate Software Engineer — August, 2019 – June, 2020
- Spearheaded front-end development efforts for Bosch's worldwide internal website, overseeing a comprehensive redesign and implementing Open API Specification, significantly **elevating user experience for 80%** of the product.
- Developed **White Box Unit and Integration tests** in C# to support software development.
- Provided internal **Compilation and Encryption** support for Java and C# tools using PC Guard and Inno.

VSSC, Indian Space Research Organisation — Trivandrum, India
Project Intern — August, 2018 – June, 2019
- Built an **efficient distributed MPI** (Message Passing Interface) **framework** for solving computational problems, ensuring load balancing in a parallel computing environment.
- Analyzed implementations of centralized, peer-to-peer, and greedy techniques for communication in partitioned graph files made using MPI C++, and it was determined greedy approach is the best option, free from deadlock and starvation.

PROJECTS

Online Dictionary (React, Material UI, Node.js, IBM Cloud, MongoDB)
- Developing an Online Dictionary website with React and Node.js, hosted on IBM Cloud, to offer word meanings with pronunciation. This project involves the implementation of word parsing and MongoDB storage, alongside the creation of components for "Word of the Day" and "Trending Words" based on popular searches.

8-bit Microprocessor (Verilog, Xilinx Vivado, Basys 3 FPGA)
- Designed, implemented, and simulated an 8-bit microprocessor, which integrated critical components including a program counter, instruction memory, register file, ALU, data memory, multiplexer, and control unit. Additionally, conducted extensive functional verification utilizing the Basys 3 FPGA board.

Bank of Buffalo (pgAdmin, ElephantSQL, HTML5, Bootstrap, Express, jQuery)
- Developed a robust **database management system** and user-friendly web application to efficiently store, manage, and retrieve data related to branches, users, user accounts, and transactions, enhancing customer and staff interaction.

Pokemon In A Block (Solidity, Truffle, Ganache, Goerli, Infura, OpenZeppelin, Web3, JavaScript)
- Conceptualized, tokenized, and deployed Pokemon cards into a **decentralized ecosystem**, fostering secure, transparent, and tamper-proof card trading while boosting trust and reliability within the community.

SKILLS

- **Programming Languages:** Python (NumPy, Pandas, SciKit-Learn), R (Bioconductor), C#, Solidity, Verilog, C, Bash, Groovy
- **Web & Desktop Application Development:** HTML, CSS, Bootstrap, JavaScript, jQuery, AJAX, Windows Presentation Foundation (WPF), ASP.Net (MVC & Web Forms), .NET (Framework & Core), ASP.NET Web/ REST API, NUnit, PostgreSQL
- **Software and Tools:** Linux, Microsoft Office, Microsoft Visual Studio, Remix, Jupyter, PyCharm, RStudio, Postman, Swagger, Jenkins, Git, Sourcetree, Bitbucket, Jira, Confluence, PC Guard, Inno, LaTex, MATLAB, METIS

CERTIFICATION

- **RBEI-NIPUN: Data Certified,** *Simplilearn*
  - Statistics, Data visualizations, Predictive analytics, Hadoop Big Data framework, PySpark, and Amazon Web Services (AWS)