

BLESSY BOBY

blessybo@buffalo.edu, 716-617-9892, Buffalo, NY. [linkedin.com/in/blessy-boby/](https://www.linkedin.com/in/blessy-boby/), blessyboby.github.io/PersonalWebsite/

EDUCATION

Master of Science in Computer Science and Engineering (Software Systems),

Expected December 2023

University at Buffalo, The State University of New York

- Relevant Coursework: Introduction to Machine Learning, Algorithms Analysis and Design, Computer Security, Computer Architecture, Data Models and Query Languages, Blockchain

Bachelor of Technology in Computer Science and Engineering,

July 2019

College of Engineering Trivandrum, APJ Abdul Kalam Technological University, Trivandrum, India

EXPERIENCE

Research Apprentice, Roswell Park Comprehensive Cancer Center, Buffalo, NY

June 2023 – Present

- Analyzing differential gene expression from bulk and single-cell **RNA** and **ATAC** sequencing 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.

Software Engineer, Bosch Global Software Technologies PVT LTD, Coimbatore, India

August 2019 – 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 "Tea(m)-time" 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.
- 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, Integration, and automated tests** in C# to support software development and ensure the reliability and functionality of software releases.
- Provided internal **Compilation** and **Encryption** support for Java and C# tools using PC Guard and Inno.

Project Intern, VSSC, Indian Space Research Organisation, Trivandrum, India

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.
- Worked on data consisting of **mesh files** in **VTK format**, which was converted into graphs and partitioned using METIS software.
- 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, MongoDB, Kubernetes, IBM cloud)

August 2023 – Present

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, a User profile feature with Favorites and Learning, 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 Board)

January 2023 - May 2023

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)

January 2023 - May 2023

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)

January 2023 - May 2023

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), WinForms, 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

CERTIFICATIONS

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

ACHIEVEMENTS

- **Bravo Award, Bosch Global Software Technologies PVT LTD:** Embraced change; Quickly learned a complex module and started working independently [March 2021]
- **Spot Award, Bosch Global Software Technologies PVT LTD:** Gained Efficiency; Significant improvement in tasks and, Customer acknowledgment and appreciation. [May 2020]
- Recipient of **Microsoft Student Partner**, representing College of Engineering Trivandrum for the year 2017