

# BLESSY BOBY

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## EDUCATION

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

Dec 2023

*University at Buffalo, The State University of New York*

Relevant Coursework: Intro to Machine Learning, Algorithms Analysis and Design, Computer Security, Data Models and Query Languages

**Bachelor of Technology** in Computer Science and Engineering,

Jul 2019

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

Relevant Coursework: Data Structures, Distributed Computing, Object Oriented Design and Programming, Computer Architecture

## SKILLS

**Programming Languages:** C#, Python (Tkinter, NumPy, Pandas, SciKit-Learn), JavaScript, Bash, Groovy, R, Solidity, Verilog, C

**Web & Desktop Application Development:** HTML, CSS, Bootstrap, React, WPF, MVVM, WinForms, ASP.Net (MVC & Web Forms), .NET (Framework & Core), ASP.NET Web/ REST API, Open API (Swagger), jQuery, AJAX, PostgreSQL, Microsoft SQL Server, MongoDB, Testing (JUnit, White Box, Black Box, Integration, System), Microsoft Expression Blend

**Software and Tools:** Git, Jira, Jenkins, Confluence, Postman, PowerShell, Linux, Microsoft Visual Studio, Remix, Jupyter, PyCharm, RStudio, Sourcetree, Bitbucket, GitHub, PC Guard, Inno, LaTeX, MATLAB, METIS, Microsoft Office

## EXPERIENCE

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

Jun 2023 - Dec 2023

- Data analysis of 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.
- **Identified outliers** in data using visualization, highlighting need for further investigation and content review before accepting research findings for publication.

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

Aug 2019 - Jul 2022

- Developed a **custom C# library** for monitoring over **50 tools** used company-wide, enhancing their online and offline tracking capabilities.
- Developed enterprise-grade **software tools** using **modular/OOP/OOD methodology** in WPF with C# within the .Net framework, **enhancing the GUI**, to streamline the calibration analysis process for engineers, leading to a **50%** increase in efficiency.
- Upgraded a **Python/Tkinter GUI** Windows application, integrating ETAS MDA functionality, significantly boosting tool accessibility.
- **Full stack developer** spearheading front-end development efforts for **Bosch's Tool Catalog website** redesign and maintenance, elevating user experience, impacting **80%** of the product portfolio.
- Independently managed multiple projects, effectively coordinating with clients and leveraging **Agile** and **Scrum** methodologies, while fostering collaboration with cross-functional teams and utilizing source control tools like **GitHub** and **Bitbucket**.
- Expertise in the **full software product lifecycle**, from gathering and defining technical requirements, researching and selecting optimal technologies, to designing, coding, tuning, testing, and maintaining comprehensive documentation.
- Supported end users with product demos, and provided **encryption** and **compilation** for Java and C# tools ensuring code safety.
- 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.

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

Aug 2018 - Jun 2019

- Built an **efficient distributed MPI** (Message Passing Interface) **framework** for solving computational problems, ensuring load balancing in a parallel high performance computing environment.
- Worked on data consisting of **mesh files** in **VTK format**, which was converted into graphs and partitioned using METIS software.

## PROJECTS

**Online Dictionary (React, Material UI, Node.js, MongoDB, Kubernetes)**

Aug 2023 - Dec 2023

Online Dictionary built with React and Node.js to offer an ad-free experience, free of cost. Users can create profiles, favorite the words, access learning history and provide feedback to the team. The dictionary offers meanings of different pos, pronunciation, etymology, synonyms, antonyms and examples for the searched word and also enables the user to request a word to be added to the dictionary.

**Bank of Buffalo (pgAdmin, ElephantSQL, HTML5, Bootstrap, Express, jQuery)**

Jan 2023 - May 2023

**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.

**8-bit Microprocessor (Verilog, Xilinx Vivado, Basys 3 FPGA Board)**

Jan 2023 - May 2023

Designed, implemented, and simulated an 8-bit microprocessor, integrating critical components like program counter, instruction memory, register file, ALU, data memory, multiplexer, and control unit. Additionally, conducted extensive functional verification utilizing the Basys 3 FPGA board.

## 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, 2021
- **Spot Award**, Bosch, 2020