

**SANJEEV STEPHAN MURMU**

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To the Principal,  
St. Thomas School, Agaimore

**Subject: Application for Computer Science, History and English Teacher Position**

Respected Principal,

I am writing to express my enthusiastic interest in the position of Computer Science, History or English Teacher at St. Thomas School, Agaimore. With a strong foundation in both computer science and English language education, I am eager to contribute to your esteemed institution and support student growth in alignment with the ICSE curriculum. In my previous role as a Content Developer at Byju's, I created engaging educational content that emphasized critical thinking and creativity, essential components of both computer science and English education.

My technical expertise in **Computer Science** is demonstrated through projects such as the My Classmate Android App, which I developed at St. Xavier's College, Ranchi. This app utilized JAVA and XML to assist students in managing their academic resources effectively, promoting collaborative learning—a key aspect of the ICSE approach. Additionally, I designed a web application for managing fee receipts using Django, HTML, CSS, and JavaScript, showcasing my ability to integrate technology into educational settings.

Furthermore, my strong proficiency in **English**, both spoken and written, enables me to effectively communicate complex topics and foster language skills through interactive activities. I have experience developing English-focused content that encourages critical thinking and creativity among students. This dual focus on computer science and English allows me to create a comprehensive learning environment that supports interdisciplinary learning. My commitment to nurturing students' language proficiency aligns perfectly with the ICSE curriculum's emphasis on comprehensive language education.

Additionally, my background in **History** has equipped me with critical thinking and analytical skills that enhance my teaching methodologies. While history may not directly relate to computer science, it provided me with valuable cross-disciplinary insights that had enrich my understanding of various subjects. My academic background also includes foundational topics in **Environmental Studies**, **Political Science**, and **Economics**, further broadening my knowledge base.

Throughout my education, I have covered essential subjects such as Computer Science during my Intermediate studies and English, Science, and Social Science during Matriculation. This diverse academic background allows me to integrate various perspectives into my teaching approach.

I am particularly drawn to your school's commitment to academic excellence and holistic education. I am eager to bring my technical skills and innovative teaching methods to your esteem Institution. I would appreciate the opportunity to discuss how my experiences align with the needs of your school.

Thank you for considering my application.

Sincerely,

**Sanjeev Stephan Murmu**

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## OBJECTIVE

Dedicated, Obsessed with Learning and Enthusiastic Educator with a Strong Foundation and Passion for Computer Science, Programming, Proficient in English Language and Educational technologies, seeking the position of A Teacher at St. Thomas School (Agaimore). I can be a good human resource by leveraging my technical expertise, incorporating modern educational tools and technologies into teaching and passion for fostering student growth in alignment with the ICSE curriculum.

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## EXPERIENCE

### CONTENT DEVELOPER

2022

Byju's The Learning App | Created Engaging Educational Content for Byju's for Class LKG to 3<sup>rd</sup> Standard Students

- **Designed** interactive and engaging educational content tailored for young learners to enhance their learning experiences.
- **Interactive Storytelling:** Created stories such as "Tommy the Turtle's Math Adventure," using tools like *Toontastic* and *StoryJumper* to teach math through engaging narratives.
- **Educational Coding Games:** Developed alphabet matching games using platforms like Scratch and Kahoot!.
- **Animated Videos:** Produced short animated videos using *Powtoon* and *Animaker* to explain basic concepts such as shapes and numbers.
- **Interactive Quizzes:** Learned to design quizzes on platforms like Quizlet and Google Forms, offering instant feedback.
- **Virtual Field Trips:** Learned to Organized virtual tours to zoos and museums using platforms like Google Expeditions.
- **Memorization Tools & Techniques:** Learned about Active Recall via flashcards, and how to draw Mind Maps

### DEVELOPER & DESIGNER

MandiEddpa | A Tribal Cuisines Restaurant in Ranchi – Owned & Managed by *Kapil Toppo*

2019 – 2020

Worked in a Restaurant to provide backend website and design related services.

- **Developed** the website for the restaurant which was coded in HTML, CSS, and JavaScript.
- **Designed** marketing materials, including banner, logos and menu templates & handouts for the restaurant using Canva & Photoshop.
- **Monitored** the Packages in inventory using Bar codes and Improved operational efficiency by implementing inventory management practices for 50+ food items.

### ANDROID APP & WEB DEVELOPER

St. Xavier's College, Ranchi | An Autonomous College of Ranchi University – Administered by *Jesuit Society*

2016 – 2017

Developed My Classmate Android App for St. Xavier's College Ranchi

- **Created** an Android app using JAVA and XML to assist my classmates during our freshman year at St. Xavier's College, Ranchi.
  - **Implemented** features such as student info database, inbuilt eBook reader, calendar, and student login integration.
  - **Utilized** technologies including Android Studio for development and SQLite for local database management.
  - **Learned** about the Version Control Cycle System and how to do a proper debugging of any Application
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## WEB APP DEVELOPER

2016 – 2017

Created Fee Receipt's Web App for the St. Xavier's College Ranchi

- **Developed** the frontend and database of the College Fee Receipt's web app using Django - Python's Web Framework.
- **Designed and implemented** a web-based application for managing fee receipts, providing features such as real-time fee calculation, challan generation, and printing options.
- **Utilized** technologies including Django (Python framework), HTML, CSS, and JavaScript to develop a user-friendly interface and dynamic backend database.
- **Integrated** a database for secure storage of student and fee-related data.

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## ABILITIES

### CYBER SECURITY ANALYST

Case I: Prevented An Attack and Assisted in Fixing Major Bug in The Institution's website (*St. Xavier's College Ranchi Website*)

- Identified and prevented a security vulnerability in the college's student portal, where unauthorized users could access accounts by incrementing registration numbers and corresponding passwords sequentially.
- Analyzed the issue, classified it as an **Insecure Direct Object Reference (IDOR)** vulnerability, and implemented fixes to secure user authentication and session management.
- Strengthened the website's security by recommending password complexity rules and implementing rate-limiting to prevent brute force attacks.
- Technologies Used: **Linux OS, Python** and **SQL**.

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Case II: Analyzed and Reported the Institution about the potential malicious flaws in the Institution's website

**Synopsis:** On my college's website, it was possible to log into the system and access student information by sequentially changing the registration numbers. For example, my registration number was 16AHIS033717, and the corresponding password was 33717, which are the last five digits of the registration number. This allows anyone to log into any student account by simply incrementing the registration number and using the corresponding password.

**Explanation:** This type of attack is known as a **predictable serial number attack** combined with a **SQL injection attack** complimented by **dictionary attack**. This type of attack involves inserting malicious SQL code into an input field, which then gets executed by the database. This can allow an attacker to access sensitive information, such as login credentials, from the database. The attacker guesses or predicts the serial number and password patterns to gain unauthorized access to user accounts.

To prevent such attacks, I proposed few suggestions to the institution:

1. **Use of A Strong, Unique Passwords:** Ensure that passwords are not easily guessable and are unique for each user.
2. **Implementation of Multi-Factor Authentication (MFA):** Adding an extra layer of security can significantly reduce the risk of unauthorized access such as login with password as well as via OTP
3. **Limiting the Rate and Implement Lockout Mechanisms:** Limit the number of logins attempts and lock accounts after several failed attempts.
4. **Use of a Non-Sequential Serial Numbers Passwords:** Avoid using easily predictable serial numbers. Instead, use random or hashed serial numbers.
5. **Regular Security Audits:** Conduct regular security checks and updates to identify and fix vulnerabilities.
6. **To Educate the Students:** Conducted seminar on the importance of strong cyber hygiene and recognizing phishing attempts.

Implementation of these measures can greatly enhance the security of our Institution's website and protected student information from *Identity Theft*.

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## CONTEXT, PATTERNS, COMMUNICATION

### Case I: How a Degree in History enhances my perspective as an Educator

My educational background which includes a **Bachelor of Arts (Honours) in History** provided me with several advantages for a teaching career, particularly in emphasizing the "bigger picture," recognizing patterns, and utilizing historical data:

- **Understanding Context and Perspective:** A history degree cultivates the ability to analyze events within their broader historical context. Teachers with this understanding can help students grasp the significance of events and ideas, fostering critical thinking and a nuanced perspective on the world.
- **Identifying Patterns and Trends:** History involves examining recurring themes, cause-and-effect relationships, and the evolution of ideas over time. This skillset equips teachers to guide students in recognizing similar patterns in various subjects, enhancing their analytical and problem-solving abilities.
- **Drawing Informed Conclusions:** Historians learn to evaluate sources critically, weigh evidence, and construct well-supported arguments. These skills are directly transferable to teaching, as teachers must assess student work, provide constructive feedback, and encourage students to develop evidence-based reasoning.
- **Effective Communication and Storytelling:** History involves conveying complex information in an engaging and accessible manner. Teachers with a historical background can utilize storytelling and narrative techniques to make lessons more captivating and memorable for students.

**It is important to note that these insights are based solely on my personal views.**

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### Case II: How a Degree in History had helped me for my passion in Computer Science

While history degree was very helpful for my career in computer science as it gave me more than enough time for other projects to work. This suggests that my background in history degree was never a hindrance in pursuing meaning projects from which I get to learn a lot and helps me gain valuable experiences as a content creator, developer and designer, android app and web developer

Here are some ways a history degree had help me transition into computer science, benefits me from studying history:

- **Developing Critical Thinking and Analytical Skills:** Studying history hones skills in analyzing information, identifying biases, and forming conclusions based on evidence. These skills are valuable in computer science for problem-solving, debugging code, and designing algorithms.
- **Understanding Complex Systems and Processes:** History involves understanding complex social, political, and economic systems. This ability to grasp intricate structures can be applied to understanding complex software systems and technological architectures.
- **Communicating Effectively:** Historians are trained to communicate complex ideas clearly and persuasively. This is crucial in computer science for explaining technical concepts to colleagues, clients, users and students.

It's important to note that my background and understanding in history helped my pick-up important traits such as how to do your own research further hones my skills in analyzing information, identifying biases, and forming conclusions based on prior data thus my background in both history and computer science fields helped me gain a more comprehensive understanding of how other disciplines can intersect as well.

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# SKILLS

## SOFT SKILLS:

- ❖ **Attention to Detail:** I prioritize precision in conducting research, experiments and recording results, ensuring accuracy and reliability in all my work. Tries to give my best to any task I am committed ensuring timely completions.
  - ❖ **Adaptability:** Quick learner who can adjust to new teaching methods and tools.
  - ❖ **Communication Skills:** I possess effective verbal and written communication abilities in English language
  - ❖ **Organizational Skills:** Efficiently manages multiple tasks, ensuring timely completion
  - ❖ **Skilled** in incorporating modern educational tools and technologies into teaching.
  - ❖ **Expertise** in designing engaging lesson plans for computer science concepts.
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## TECHNICAL SKILLS:

### Miscellaneous

- ❖ **Data Analysis & Management Skills:** Experience in maintaining accurate records and data entry & presentation via Graphs.
- ❖ **Typing Proficiency:** Fluent in Hindi and English typing with a speed of [50-60] WPM.
- ❖ **IT Troubleshoot Skills:** Resolve all kinds of Computer, Windows & Server's Issues, Knows Linux & Networking.

### Proficiency in Technologies

- ❖ **Programming:** Python, PowerShell, Java, Django Framework.
- ❖ **Hardware Programming:** Arduino & Raspberry Pi (**microcontrollers**).
- ❖ **Mobile App Development:** Java, Kotlin.
- ❖ **Web App Development:** HTML, CSS, JavaScript, JSON, XML, Django.

### Proficiency in Tools

- ❖ **Mobile Development IDE:** Android Studio.
- ❖ **Design Tools:** Adobe Photoshop, Adobe Premiere Pro, Adobe XD, Canva.
- ❖ **Microsoft Office Suite:** Word, Excel, PowerPoint.
- ❖ **Operating Systems:** Windows, Linux.

## SUBJECTS COMPETENCY:

- ❖ **Computer Science:** Demonstrated expertise in computer science through various projects and professional roles, including app and web development. Created coding games, animated videos, and interactive storytelling for educational purposes, showcasing a passion for teaching computational concepts.
- ❖ **English:** Strong proficiency in English, both spoken and written, enabling effective communication and teaching of complex topics. Experience in developing English-focused content and fostering language skills through interactive activities.
- ❖ **History:** Gained critical thinking and analytical skills through a Bachelor of Arts (Honours) in History. While not directly related to computer science, this background enhances teaching methodologies by integrating cross-disciplinary insights.
- ❖ **Additional Academic Subjects:** Covered foundational topics in Environmental Studies, Political Science, Economics during graduation and broadened knowledge in Computer Science and English during Intermediate while English, Science, and Social Science during Matriculation and lastly opted Psychology as my optional paper during my UPSC preparation.

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## EDUCATION

### BACHELOR OF ARTS (HONOURS) IN HISTORY

2019

- Graduated from **St. Xavier's College, Ranchi** with 1<sup>ST</sup> Division
- Subjects Studied (History, Research Methodology, Environmental Studies, Political Science, Economics, English)
- Obtained 1502 Marks out of Total of All Subjects - 2500 resulted in Percentage - **60.08%**

### INTERMEDIATE IN SCIENCE

2014

- Passed 12<sup>th</sup> Standard in the Computer Science with 1<sup>ST</sup> Division
- Did Intermediate Schooling from Greenland Public School, Ranchi in CBSE Curriculum
- Subjects Studied (English Core, Physics, Chemistry, Physical Education, Computer Science & Math)
- Obtained 301 Marks out of Total Marks - 500 which resulted in Percentage - **60.20%**

### MATRICULATION

2012

- Passed 10<sup>th</sup> Standard in the Math Science background with 1<sup>ST</sup> Division
- Did Matriculation from Jawahar Navodaya School, Banka
- Subjects Studied (English, Hindi, Science, Social Science, Mathematics)
- Obtained 321 Marks out of Total Marks – 500 which resulted in Percentage – **64.20%**


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## PERSONAL

### BIODATA

Name	<b>Sanjeev Stephan Murmu</b>	Date of Birth	<b>18<sup>th</sup> June 1997</b>
Father's Name	LATE. Mannuel Suraj Prasad Murmu	Religion	<b>Christian</b>
Mother's Name	Priska Kisku	Gender	<b>Male</b>
Marital Status	<b>Single</b>	Category	<b>Member of Scheduled Tribe (ST)</b>

### COMMUNICATION

Mobile Number	6201432196	SCAN QR (check out my portfolio)	
Email Address	samstephan069@gmail.com		
State	Jharkhand		
Residential Address	Godda, Jharkhand		
		This QR Will Redirect You to my website URL: https://sanjeevstephan.github.io/myresume	

### HOBBIES

- Automating Window OS's Boring Trivial Tasks using Programming Languages such as (PowerShell & Python).
- Reading eBooks (Mostly in Self-Development & Self-Learning).
- Developing My Own "**Self-Hosted Internet**" using Django – Python's Web Framework.
- Obsessed with Building My own "**Second Digital Brain**".
- Playing Chess.