

SHAHANAS BEEGAM P

Chemistry Educator|STEM Education & AI Integration|Data Analytics & EduTech

DETAILS

ADDRESS

Pattambi, India

PHONE

+91 9645367561

EMAIL

shahanasbeegam96@gmail.com

WEBSITES AND SOCIAL LINKS

LinkedIn:

[linkedin.com/in/shahanas-beegam](https://www.linkedin.com/in/shahanas-beegam)

GitHub:

github.com/shahanasbeegam

Portfolio:

<https://shahanasbeegam.github.io/>

SKILLS

Chemistry education and academic support

STEM curriculum design and lesson planning

AI-supported content development and review

SUMMARY

Chemistry professional with experience in **STEM education, AI-supported content development, data analytics, and educational technology**. Holds an **MSc in Chemistry, BEd**, and is currently pursuing **MCA**, enabling an interdisciplinary approach that combines subject knowledge with technology and analytical thinking. Actively engaged in exploring the **role of artificial intelligence in enhancing STEM educational content and learning experiences**, with practical experience using **AI tools, simulations, and digital platforms** to support lesson planning, instructional design, and academic review.

EXPERIENCE

Chemistry Educator / STEM Educator, Various Institutions

Apr 2017-Current

- Teach **Chemistry** at secondary and higher secondary levels with focus on conceptual understanding
- Design lesson plans aligned with curriculum objectives and learner outcomes
- Integrate **AI tools, PhET Interactive Simulations, and Khanmigo (by Khan Academy)** to enhance engagement and concept clarity
- Conduct laboratory sessions and guide students in experimental procedures and interpretation
- Review and refine academic materials for clarity, accuracy, and instructional effectiveness

STEM Educator & Program Coordinator,

Jan 2020-Current

Simulation-based and technology-enhanced learning



Data cleaning, analysis, and interpretation



Dashboard creation using Excel and Power BI



Python for data handling and basic automation



Digital and blended teaching workflows



AI Tools



- Delivered interdisciplinary STEM programs integrating **Chemistry, coding fundamentals, introductory AI concepts, robotics, and ICT**
- Designed hands-on and simulation-based learning experiences
- Coordinated program delivery with emphasis on quality, documentation, and learner engagement

Data Analytics Intern (Remote), Mentorness

Remote

Jun 2024-Jul 2024

- Performed data cleaning, transformation, and analysis using **Excel, SQL, and Python**
- Created dashboards using **Power BI** to summarize trends and insights
- Supported structured reporting and data accuracy workflows

Data Analyst Trainee (Remote), Trainity

Apr 2024-Dec 2024

- Conducted exploratory data analysis
- Built interactive dashboards using **Power BI**
- Developed attention to detail in data validation and reporting

EDUCATION

Amity University Online, MCA,

2024-2026

Ongoing

University of Calicut, B.Ed, Physical Science

2021-2023

University of Calicut, M.Sc Chemistry, Chemistry

2017-2019

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

- State Eligibility Test (SET) – Qualified
- Kerala Teacher Eligibility Test (KTET) – Category II & III – Qualified
- Central Teacher Eligibility Test (CTET) – Qualified
- Cambridge Teaching Standards & International Pedagogy – UP Educators
- Teaching in the 21st Century – Centre for Advanced Learning
- STEM Education: What It Is and What It Is Not – Sharjah Education Academy
- Python for Data Science
- ICT in Education

RESEARCH PROJECT

Role of AI in Enhancing STEM Educational Content and Learning Experience *Secondary Research Project*

- Conducted a structured literature review on **AI applications in STEM education**
- Analyzed the impact of **AI-driven tools, simulations, and adaptive learning platforms** on student engagement and understanding
- Examined best practices for integrating AI into lesson design and instructional workflows
- Identified challenges, ethical considerations, and future opportunities for AI-supported STEM learning

TOOLS & TECHNOLOGIES

- **AI Tools:** ChatGPT, Google Gemini, Claude AI
- **Simulation & EdTech:** PhET Interactive Simulations, Khanmigo (Khan Academy)
- **Design & Visuals:** Adobe Firefly, Canva
- **Data & Analytics:** Microsoft Excel, Power BI, SQL, Python
- **Collaboration Platforms:**

- **STEM Tools:** Arduino

PROFESSIONAL INTERESTS

- AI integration in STEM education
- Technology-enhanced chemistry teaching
- Data-informed educational practices
- Interdisciplinary STEM initiatives

REFERENCES

Dr. Binitha N N

Professor, University of Calicut

■ binithann@yahoo.co.in | ■ 9497625535

Roy K. B

Assistant Professor, SNGS College, Pattambi

■ roykb111@yahoo.co.in | ■ 9048902721