

BRIAN KLOOSTERMAN JR

Sault Ste Marie, Michigan | Tel: +1 906 298 0994 | Email: Brian.L.K.Jr@gmail.com

PROFESSIONAL SUMMARY

Experienced technologist and teacher able to develop technology solutions and a record of merging theoretical knowledge with practical applications. Expertise spans innovative product design, robotics, artificial intelligence, and strong technical proficiency in programming, including developing creative, interactive applications. With extensive experience as a teacher, administrator, and curriculum developer, I have successfully integrated technological advancements into the curriculum to enhance students' learning experiences. I am passionate about developing new technologies and positively impacting people by driving forward-thinking projects and building an environment of continuous learning and innovation.

CORE COMPETENCIES

- **Robotics & Artificial Intelligence:** Ability to blend theoretical knowledge with practical applications.
- **Innovative Product Design:** Conceptualizing and creating products.
- **Technical Proficiency:** App development, programming, and the use of AI technologies.
- **Project Management:** Leading technology projects from conception to completion.
- **Interactive Application Development:** Creating a range of creative, engaging, and educational applications.
- **User Interface Design:** Ensuring that applications are user-friendly and accessible to a diverse audience.
- **Technical Communication:** Explaining complex technical concepts in an understandable manner.
- **Multidisciplinary Teaching:** Experience in teaching a broad range of STEAM subjects.
- **Curriculum Development:** Planning curricula that integrate various STEAM disciplines.
- **Educational Technology Integration:** Using educational technology to enhance learning experiences.

EDUCATION

Master of Education (MEd) in Globalization in Education

Moreland University | 2017 | Cumulative GPA: 3.64

Bachelor of Arts in Fine Art Studies (Web Development, Visual Arts, & Dance)

Lake Superior State University | 2013 | Cumulative GPA: 3.4

WORK HISTORY

DIRECTOR | Reina Recycling | September 2022 – Present

- Identifying opportunities for growth and community contributions.
- Improving resource recovery with available resources.
- Developing learning material.
- Contribute knowledge of legacy computing and information technology.

TEACHER OF PHYSICS, COMPUTER SCIENCE, & PHILOSOPHY | Kunming International Academy | July 2022 – July 2024

- Developing and implementing interactive lesson plans that cater to the diverse learning needs of students.
- Using a variety of teaching methodologies and educational technology tools to enhance learning experiences.
- Engaging students in hands-on projects and practical exercises that emphasize coding proficiency, computational thinking, and problem-solving skills.
- Integrating the latest technological advancements and programming languages into the syllabus to prepare students for real-world applications and future technological challenges.
- Maintaining up-to-date knowledge of subject matter and teaching best practices to deliver content effectively and inspire student engagement.
- Encouraging critical thinking and problem-solving skills among students by integrating real-world applications and interdisciplinary approaches.
- Collaborating with colleagues to develop a curriculum that aligns with local, American, and international educational standards.

TEACHER AND CURRICULUM DEVELOPER | Daxuan Primary School | July 2020 - July 2022

- Developed and implemented an innovative curriculum focused on Science, Sociology, History, Computers, Math, and Unit of Inquiry (UI) design for primary school students.
- Integrated hands-on projects tasks to foster practical skills and creative thinking.
- Collaborated with colleagues to incorporate the technology, knowledge, and tools into the learning experience.

- Led workshops and training sessions to enhance students' proficiency in computer literacy fundamentals.
- Provided feedback and support to students, guiding them through complex concepts and technical challenges.

TEACHER | IC Academy (formerly Ashton High School) | July 2014 - July 2020

- Taught Chemistry & Physics (6 years), AP Computer Science A (4 years), Student lead projects (3 years), PE (2 years), US Civics (1 year), and Arts (1 year).
- Conducted experiments and practical demonstrations in Chemistry and Physics to enhance students' understanding of scientific principles and methodologies.
- Taught advanced programming concepts, data structures, algorithms, and software development techniques in the AP Computer Science A course.
- Assessed student understanding and progress through tests, laboratory reports, and programming assignments.
- Adapted teaching strategies and materials based on student performance data to improve educational outcomes.
- Encouraged critical thinking, analytical skills, and problem-solving through coursework and real-world applications.
- Collaborated with colleagues in the science and technology departments to integrate interdisciplinary approaches.

CURRICULUM DEVELOPER | IC Academy (formerly Ashton High School) | July 2015 - July 2020

- Conducted research and analysis to develop science and computer science curricula that met academic standards and learning objectives.
- Designed learning materials, including lesson plans, laboratory exercises, and digital resources, to facilitate effective teaching and learning.
- Integrated current scientific research and technological advancements into the curriculum to keep content relevant and up-to-date.
- Developed assessment tools and strategies to measure student learning outcomes and curriculum effectiveness.
- Managed the integration of educational technology tools to enhance teaching and learning experiences in science and computer science subjects.

STUDENT AND FACILITIES MANAGER | IC Academy (formerly Ashton High School) | February 2018 - July 2019

- Worked with teachers and students to create positive and supportive learning environment.
- Worked with school administrators, teachers, and staff to support student activities, events, and programs.
- Developed and implemented policies and procedures for effective facility management.
- Ensured the provision of technology resources and facilities to support the teaching and learning needs of both teachers and students.

SKILLS

- Java, JavaScript, C++, C#, Python, Pascal, Scratch- AWS, Node.js, P5.js
- Cultural Research
- Digital Media, Video, Images, Music, Audio
- Data Analysis, SQL, Spreadsheets, Data Visualizations, Interactive Data Visualizations
- TensorFlow.js, Custom Models, LLMs, Text to Speech, Speech to Text, Object Recognition, AI Architecture
- Linux, Computer Hardware
- Visual Studio, Eclipse, Git
- Educational Technology
- Arduino, Electronics, 3D Printing

CERTIFICATIONS

- **Fundamentals of Google AI for Web Based Machine Learning** | Professional Certificate | Google | 2023
- **TESOL Certificate** | OnTesol | 2014

AWARDS

- **Four Qualities of an Excellent Teacher** | Dianchi Experimental School | 2018
(Awarded for showing Revolutionary Ideas, Moral Character, Professional Learning, and Compassion for Students)
- **Star Teacher Award** | IC Academy | 2018
- **Artwork Displayed in Michigan House of Representatives** | 2008

PORTFOLIO

Visit <https://theluckyfellow.github.io/BLKJr/index.html>

- Fully Autonomous Robot | May 2023 - present

Among the first projects to use LLMs to provide intelligence and autonomy to a robot.

- TensorFlow.js, Node.js, P5.js, AWS, Arduino, YOLOv8 with custom code for stereo vision, LLM, Voice to Text, Speech Synthesis

- *znen Translator: A Simple Work In Progress* | May 2023 - present

An AI translation app using Qwen 72B, Whisper, and a aisc TTS.

- Node.js, P5.js, AWS, Arduino, LLM, Voice to Text, Speech Synthesis

- *Bugs & Birds: A Simple Evolution Simulator* | 2023

Developed for a middle school biology course.

- P5.js

- *Paths Are Hypercubes* | 2023

A simple experiment to answer a student's question in an AP Physics class.

- P5.js

- *Elementary Inquiry-Based Science and Math* | 2020-2022

Developing and teaching students in an innovative elementary school.

- Curriculum Development

- *Cellular Automata Experiments* | 2016-2021

Experiments with variations on Conway's Game Of Life.

- Java, multi threading

- *Pixels and Duck* | 2020-2021

A visual programming app for elementary students.

- Java

- *Interactive Calculator* | 2020

A project that created an interactive calculator for students.

- P5.js

- *My Numbers* | 2020

A new number system inspired by an ancient system used by Cistercian monks of Italy.

- P5.js

- *ESL Video Player* | 2020

A video player that uses the subtitles from a video to test your listening skills.

- Java, P5.js

- *Neurons: Evolutionary Spiking Neural Network* | 2018-2019

My first attempt at Artificial Intelligence (AI) completely coded from scratch.

- Java, multi threading

- *VR Stage Acting Simulator* | 2017

A VR simulation where you could take on the role of any character in any play.

- Unity, C#, Custom scripting language

- *ArtRooms: A VR Museum for Students* | 2016

A VR museum created for a friend's AP Art History class.

- Unity, C#, AWS

- *Science Curriculum Development* | 2015-2019

Project-based, vertically-integrated, and horizontally-integrated student assessments.

- Curriculum Development