

Kevin Baumann

Summary

Software and Virtual Commissioning Engineer with diverse experience in simulation, automation, and software development. Proven expertise in using iPhysics, WinMOD, and Beckhoff PLCs, gained through a comprehensive internship at Tesla Inc, where I ramped up simulation processes in battery cell manufacturing. Skilled in programming languages such as Python, C++, and Java, with hands-on experience in web development, machine learning, and game development using tools like Unity and Unreal Engine. Adept at automating workflows, implementing digital twins, and collaborating with multidisciplinary teams to deliver innovative solutions. Currently pursuing a Bachelor of Science in Applied Computer Science with a focus on Games Development, graduating in June 2025 with a strong commitment to advancing technological solutions globally.

Experience

Software and Virtual Commissioning Engineer - Internship

Tesla Inc | May 2023 - July 2024

Palo Alto, California

Contributed to the optimization of battery cell manufacturing processes through advanced simulation and virtual commissioning technologies. Developed and tested structured, object-oriented controls software for Beckhoff PLCs and automated testing of Human Machine Interfaces (HMI) using Selenium and Python. Conducted rigorous stress testing of large-scale machinery in Texas to validate safety during the formation phase of battery cell development. Implemented scalable solutions for scripting and validating software-in-the-loop tests with digital twin cell equipment, leveraging iPhysics and WinMOD software.

Software Developer

Freelance | 2020 - 2022

Vancouver, BC Canada

Delivered custom web development solutions to a variety of clients, utilizing HTML, CSS, JavaScript, and responsive design techniques. Collaborated with designers and project managers to align deliverables with client expectations and optimized websites for performance and search engine visibility.

Software Developer

BCIT Mech. Engineering Dept | January - June 2022

Vancouver, BC Canada

Developed a machine learning-powered data analysis and visualization tool to enhance HVAC system research efficiency.

Demonstrated the potential of the application to improve energy efficiency studies, utilizing Python libraries and frameworks to process and present data effectively.

Education

Bachelor of Science in Applied Computer Science

British Columbia Institute of Technology | 2020 - 2025

Burnaby, BC Canada

Specialized in Game Development option.

Contact

+1 (778) 387-5139 (mobile)

baumannkev@gmail.com

LinkedIn: www.linkedin.com/in/kevinbau/

Website: www.kevinbaumann.ca

Github: www.github.com/baumannkev

Top Skills

C++

C#

Git

Agile Development

Unity Engine

Unreal Engine

Python

Web Dev

Languages

English (C2)

French (A2-B1)

German (A2-B1)

Spanish (C2)

Portuguese (B2)

Citizenships

Canada

Luxembourg (EU)