# **Bob Wilson**

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After a career in animation, I'm expanding my skills by studying coding and game development at Michigan State University.

#### Education

#### Michigan State University

exp. graduation Dec 2027

B.S. Computer Science, Concentration in Multimedia and Graphics, Game Development Cognate

East Lansing, MI

B.A. Games & Interactive Media (prerequisites in progress). Michigander Scholar, GPA 3.627

### **Washtenaw Community College**

Jan 2024 - Apr 2024

Computer Science Classes (Python, Java), 4.0 GPA, Dean's List - High Honors, Phi Theta Kappa Honor Society

Ann Arbor, MI

#### **Macomb Community College**

Warren, MI

Associate of General Studies, 4.0 GPA, summa cum laude, Dean's List. Studied MACA Digital Art & Animation Specialty

#### Technical Skills

Languages and Libraries: C++ (wxWidgets), Python (Pandas, NumPy, SciPy, SymForce, Matplotlib, JSON, REST API, CSV), C#, Java, UML Developer Tools: VS Code, CLion, IntelliJ, Unity, Jupyter, Git, GitHub, GitLab, Perforce, Jira, Visual Paradigm, Doxygen, Eclipse, Trello, Jenkins, Windows, Mac, Linux

Certifications: PCEP Certified Entry-Level Python Programmer, Adobe Certified Expert for After Effects, Photoshop, Premiere

#### Experience

# **Incoming Software Engineering Intern**

May 2025 - Aug 2025

**General Motors** 

. Warren, MI

I will be working with the Manufacturing Software Complexity team

#### **Software Engineering Intern**

Jan 2025 - Mar 2025

*Freight Verify*, Real-time visibility platform for complex supply chains

Ann Arbor, MI

- Worked on development team for Finished Vehicle product used by GM and Ford to track vehicles from assembly to dealerships
- Resolved multiple Java and Python bugs by addressing Jira tickets, ensuring improved functionality and performance
- Developed a solution to improve logging levels for a Spring Boot service running in various Kubernetes development environments

#### **Robotics Software Engineering Intern**

Feb 2024 – Apr 2024

Skydio, the world leader in autonomous drones (in partnership with Open Avenues Foundation)

San Francisco, CA (remote)

- Developed a dynamics simulation and feedback controller for Skydio's quadrotor drone using Python, NumPy, SciPy, and SymForce.
- Delivered a GitHub repository with Jupyter notebooks, including implementations, derivations, and collaborative contributions.

# **Projects**

#### Astro Flipper (2D platformer game in Unity for MSU class CAS 117 Games and Interactivity)

Feb 2025 - Mar 2025

Created custom levels with deadly spikes, created C# scripts for camera movement and gravity flipping.

#### Triangle Defender (Retro 2D shooter game in Unity for MSU class CAS 117 Games and Interactivity)

Jan 2025 - Feb 2025

- Designed and developed the game, created levels, particle effects, a cinematic, writing, and narration.
- Wrote C# scripts to animate and split enemies, randomize shooting, add cinematic subtitles, and more.

# Canadian Experience / Sparty-In-A-Box (C++ project for MSU class CSE 335 Object Oriented Software Design)

Nov 2024 – Dec 2024

- Created a 2d animation software with music box simulator with crank, gears, and shafts using C++ and wxWidgets
- Led the team-based sub-project in designing the music box in UML, the only team whose design was approved on the first attempt.
- Won the Best Movie award

# Sparty's Boots Game (Team C++ project for MSU class CSE 335 Object Oriented Software Design)

Oct 2024 - Nov 2024

- Team created a video game where the player builds circuits using AND, OR, NOT logic gates
- Created initial class design, wrote several classes in C++ and wxWidgets, refactored teammates' code, and fixed bugs

## Data Science Visualization - Crime Statistics Analysis (Python project in WCC class CPS 120)

Apr 2024

- Analyzed FBI crime data using Python in WCC Intro to Python class, utilized JSON and Pandas modules for data processing
- Generated bar charts and tables using Matplotlib for regional crime statistics relative to the national average

# **Previous Career in Animation**

Extensive experience as an Animator in Games (EA, PlayStation, Ubisoft), Feature Animation (Pixar, DreamWorks), Automotive (GM), Visual Effects (ILM, Digital Domain, MPC, Tippett Studio), AR/VR (ILMxLAB), and Advertising (Skidmore Studio for clients Ford, Chevy, Mazda, Michelin, and Microsoft). Animation resume, awards, and portfolio available at: www.bobwilsonanimation.com