

Bob Wilson

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Experienced animator transitioning into technical roles by studying Computer Science and Game Development at MSU.
Seeking internships in software engineering, game programming, technical animation, or animation engineering.

Education

Michigan State University

East Lansing, MI

B.S. in Computer Science with a Concentration in Multimedia and Graphics (expected Dec 2027)

Minor: Game Design & Development | Michigander Scholar | GPA 3.65

Washtenaw Community College

Ann Arbor, MI

Computer Science coursework | GPA 4.0 | Dean's List | Phi Theta Kappa Honor Society

Animation Mentor

Emeryville, CA

Diploma for Advanced Studies in Character Animation | Animals & Creatures Master Classes

Macomb Community College

Warren, MI

Associate of General Studies | GPA 4.0 | *summa cum laude* | Dean's List | Studied MACA Digital Art & Animation

Technical Skills

Languages and Libraries: C++ (wxWidgets), Python (Pandas, NumPy, SciPy, SymForce, Matplotlib, JSON, REST API, CSV), C#, Java, UML

Developer Tools: Visual Studio, VS Code, CLion, IntelliJ, PyCharm, Unity, Jupyter Notebook, Git, GitHub, GitLab, Perforce, Jira, Visual Paradigm, Doxygen, Eclipse, Trello, Jenkins, Valgrind, Cppcheck, Windows, Mac, Linux

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

Software Engineering Experience

Software Engineering Intern

May 2025 – Aug 2025

General Motors – Global Manufacturing Electrical & Software Defined Vehicles (SDV)

Warren, MI

- Developed embedded systems software in C++ using Visual Studio to fix bugs, automate tasks, and improve performance.
- Built tools in C++ and Python to extract and process data from various file formats. Helped troubleshoot TCP/IP network issues.
- Identified and resolved memory leaks using Valgrind and performed static analysis with Cppcheck to uncover additional bugs.
- Collaborated in Agile workflows using Git, Jira, and Confluence, contributing to ticket management and technical documentation.

Software Engineering Intern

Jan 2025 – Mar 2025

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

Ann Arbor, MI

- Contributed to development of Finished Vehicle software used by GM and Ford to track vehicles from assembly to dealerships
- Resolved Java and Python issues via Jira, improving performance and enhancing logging for a Spring Boot service in Kubernetes

Robotics Software Engineering Intern

Feb 2024 – Apr 2024

Skydio, The world leader in autonomous drones (payroll by *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

Bug Blasting (3D first person shooter game in Unity for MSU class CAS 117 Games and Interactivity)

Mar 2025 – Apr 2025

- Game design and development, C# programming, level design, lighting, and animation state machine editing.
- Fixed a number of C# bugs with the tutorial project that was provided in class.

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, C# programming 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 (C++ game team 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.

Animation Experience

- DreamWorks Animation** (Glendale, CA - remote) • Animator Jan 2023 – Dec 2023
- Animated characters for the films *Trolls Band Together* and *Kung Fu Panda 4*
 - Filed dozens of detailed Jira bug tickets to improve their proprietary animation software Premo and the 3d character rigs
 - Collaborated with Technical Directors and Software Engineers to troubleshoot issues and test bug fixes
- Pixar Animation Studios** (Emeryville, CA - remote) • Animator Dec 2021 – Dec 2022
- Animated characters for Disney+ show *Cars on the Road*, animated crowd characters for the films *Elio* and *Elemental*
 - Filed over 100 bug reports and feature requests regarding Pixar's proprietary animation software Presto
 - Collaborated with Animation Tools department and Software Engineers to troubleshoot issues and test bug fixes
 - Contributed feedback on an early version of a layered animation tool by suggesting features to improve user experience
- PlayStation Studios Visual Arts** (San Diego, CA - remote) • Senior Cinematic Animator Apr 2021 – Dec 2021
- Animated character faces using Maya for the PS5 game *God of War Ragnarök* cinematics
- Digital Domain** (Los Angeles, CA, remote) • Senior Cinematic Animator Dec 2020 – Mar 2021
- Animated characters using Maya for the cinematic *Apex Legends | Stories from the Outlands – “Northstar”*
- MPC Film** (Los Angeles, CA ,remote) • Senior Animator June 2020 – Dec 2020
- Animated dinosaurs for previs for the Apple TV+ series *Prehistoric Planet 2*
- Encore VFX** (Burbank, CA) • Senior Animator Feb 2020 – May 2020
- Animated characters using Maya for the TV shows *Batwoman*, *Supergirl*, *Doom Patrol*, and *The Flash*
- Cinesite** (Montréal, QC) • Senior Animator Oct 2018 – Dec 2019
- Animated characters using Maya for the Netflix animated films *Extinct* and *Fearless*
- Atomic Fiction** (Oakland, CA) • Senior Animator May 2018 – Jul 2018
- Animated characters for the film *Welcome to Marwen* and spaceships for the film *The Predator*
- Tippett Studio** (Berkeley, CA) • Animator Jul 2017 – May 2018
- Animated characters for *The Orville* and *Asura*, and dinosaurs for *Jurassic World: Fallen Kingdom* marketing
- Industrial Light & Magic** (San Francisco, CA) • Animator Feb 2016 – Jul 2017
- *Rogue One: a Star Wars Story*, *Nissan Battle Test VR*, *Ninja Turtles 2*, *Transformers 5*, *Carne y Arena VR*, *The Last Jedi*, *Star Wars* app
 - Beta-tested a proprietary motion capture blending tool, providing user experience feedback to the developers
- Ubisoft** (San Francisco, CA) • Senior Animator Oct 2015 – Feb 2016
- Animated characters for the game *South Park: The Fractured But Whole*
- Electronic Arts / Maxis** (Redwood City, CA) • Animator Jun 2015 – Oct 2015
- Animated characters for *The Sims 4* expansion packs *Get Together and Cool Kitchen*
 - Filed over 160 bug reports during the playtest, helping the software engineers fix numerous pre-release issues
- Industrial Light & Magic** (San Francisco, CA) • Animator Mar 2014 – May 2015
- Animated characters and creatures for the films *Transformers 4*, *TMNT*, *Tomorrowland*, *Jurassic World*, *Ant-Man*
 - Beta-tested a proprietary dinosaur tail physics simulation tool and provided user experience feedback to the developers

Animation portfolio available at: <http://www.bobwilsonanimation.com>