

Billy Zelsnack

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EXPERIENCE

Software Engineer, Teleoperation

Aug 2025 – May 2026

1X Technologies

- Owned the teleoperation stack and led a major refactoring effort that significantly improved code architecture, maintainability, and scalability for commercialization.
- Designed, implemented, and delivered key features and improvements to the core teleoperation infrastructure.

Mechanical Design and Software Engineer

May 2023 – May 2025

AvaDynamics

- Telemotor robotics web application.
- Mechanical Design contract services.
- CAD and prototyping.
- Onshape integrated application WebXR extension.

Scale Program Residency

May 2024 – May 2025

Robotics Factory

- CAD and prototyping.

Contract Mechanical Design Engineer

Jan 2023 – Apr 2023

Pipedream Labs

- Key contributor in design and construction of a technology demonstration for the Amazon MARS technology conference.
- Designed and fabricated a consumer appliance prototype from scratch.

Team Leader

2018 – 2022

AvaDynamics

- ANA Avatar XPRIZE Finalist.
- Designed and fabricated all aspects of VR telepresence robot including actuators and custom software C++ tools and OpenXR application which competed at the finals live event.

Kickstarter Campaign

2015 – 2016

Polygon Robotics

- Designed, manufactured, and shipped Polygon Delta 3D Printer Kickstarter.

Kickstarter Campaign

2012 – 2013

Adjunct Engineering

- Designed, manufactured, and shipped Printxel 3D Printer Kickstarter.

Contract Programmer

2011 – 2012

VSR - University of Iowa

- Implemented JT Import/Export of massive CAD models feature.
- Implemented real-time motion capture feature.

Stay at home Dad

2008 – 2022

Game Engine Technology Programmer

2006 – 2008

Human Head Studios

- Surgically scaffolded and replaced Doom3 physics with PhysX game physics engine allowing internal teams to transition during production.
- Physical animation tool research prototype.

Field Application Engineer

2005 – 2006

Ageia Technologies

- Traveled the world helping developers integrate PhysX game physics engine into their products.

Software Architect

2000 – 2010

Switchflip

- Contract game prototyping.
- Shipped several games during iPhone gold rush.
- Developed fastest and most robust game physics engine at the time.
- Shipped a puzzle game for sale in Real Arcade.

Game Engine Technology Programmer

1993 – 2000

Epic Games, 3DRealms, Rebel Boat Rocker (my EA funded company), Valve Software

SKILLS

Industry Knowledge

Software (C++, C#, TypeScript, etc), Robotics, CAD/CAM (onshape/Fusion), Tools Development, OpenXR/WebXR, Game Development, Unity, Prototype Plastic/Metal Fabrication

Values

Hard work, Doing a good job, Initiative, Curiosity, Self-motivation, Personal responsibility, Capital efficiency, Mission focus, Development speed, Cost reduction, Complexity reduction, Urgent Intensity, Shipping