

Seán Burns

3D & creative technology · Designer, educator & founder of **4E Virtual Design**

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I work between *the real and the virtual*, using 3D and code to connect the two.

Over about twenty years I've gone from making things by hand to making them digitally — furniture designer and maker, then production and communication automation, and now virtual reality, augmented reality and 3D tools through my studio, 4E Virtual Design. *3D and computer science* are at the core.

20+

Years' experience

5

Luxury brands worked with

3

Fields — art, engineering, science

Awarded

for design innovation

01 Experience

2004 – FOUNDATIONS

Furniture design & manufacture

Trained in **Design & Manufacture** at GMT Letterfrack, Ireland's national furniture college, working mainly in **wood**. Used 3D modelling from the start — designing and prototyping on screen, and preparing parts for CNC, laser cutting and 3D printing.

NEW YORK · GERMANY – SYSTEMS & SCALE

Managing teams & automating production

Ran **large production teams** and set up **automated manufacturing systems** for high-end joinery in **Manhattan, New York** and in **Germany**. Automated the design-to-build process with 3D software, Excel and web tools to cut repetitive work, delivering fit-out and furniture for luxury brands.

Ralph Lauren

Burberry

Louis Vuitton

Longchamp

Prada

TEACHING

Secondary & adult education

Taught **woodwork, technical drawing, design and art** at second level, plus adult evening classes — where I got used to breaking a complex craft into clear, repeatable steps.

PRESENT – 4E VIRTUAL DESIGN

VR, AR & 3D at 4E Virtual Design

Founder of **4E Virtual Design**. We build **virtual and augmented reality, 3D animation, gamification, 3D scanning and virtual production** — mostly immersive training, product visualisation and interactive marketing. Blender is the main tool; Unreal Engine 5 handles final output. The work has won awards for design innovation.

ONGOING

Workshops & mentoring

Run workshops and training for **Skillnet, Screen Ireland, the Arts Council** and universities nationwide, for staff and students, and mentor other artists moving into 3D and emerging tech.

02 Capabilities

IMMERSIVE & REAL-TIME

- Virtual & augmented reality (VR / AR / XR)
- Virtual production & gamification
- Immersive training & 360° virtual tours
- Interactive & experiential installations

DESIGN FOR MANUFACTURE

- CAD / CAM & digital fabrication
- CNC, laser cutting, 3D printing
- Process automation & workflow design
- Fine furniture & bespoke joinery

3D & VISUALISATION

- 3D modelling, rigging & animation
- Photorealistic rendering
- Environment & character design
- Architectural visualisation · 3D scanning

TOOLS & TECHNICAL

- Blender · Unreal Engine 5 · Unity
- Autodesk Inventor · 3ds Max
- Web applications & system automation
- Excel automation · FPV drone & 360° capture

03 Teaching & Workshops

LEAD TRAINER

Cultural & Creative Industries Skillnet

Designs and delivers national upskilling programmes including *Blender to Unreal Engine* and *Blender for Digital Artists* — the latter a six-week programme supported by the Arts Council's Digital Skills Programme, equipping artists with production-ready VR/AR asset skills.

WORKSHOP FACILITATOR

Screen Ireland

Hands-on training in real-time 3D, virtual production and immersive content for the screen and animation sector.

FACILITATOR

University of Galway · CREW Hub / Centre for Creative Technologies

Immersive Futures workshops introducing emerging immersive tools to researchers, students and creative practitioners.

TRAINER & MENTOR

Universities & educational facilities, nationwide

Staff and student training across the country, plus mentorship of individual artists transitioning into emerging technology.

TEACHER

Secondary & adult education

Woodwork, technical drawing, design and art at second level, with adult evening classes.

04 Education

GMIT LETTERFRACK

BSc (Hons), Design & Manufacture — Furniture Design

National Centre for Excellence in Furniture Design & Technology. Foundations across furniture & industrial design, interior architecture, CAD/CAM, digital fabrication and design for manufacture.

ONGOING

Continuing professional development

Self-directed and formal study across real-time engines, computer engineering, project management and lean manufacturing — a practice of constant retooling as the technology moves.

05 Recognition

<p>AWARDS</p> <h3>Award-winning design</h3> <p>Design work recognised with awards for innovation.</p>	<p>TRUSTED BY</p> <h3>National bodies</h3> <p>Delivers training for Skillnet, Screen Ireland, the Arts Council and universities.</p>
<p>CRAFT</p> <h3>Design for manufacture</h3> <p>Years of designing things to be built — furniture first, then digital.</p>	<p>RESEARCH</p> <h3>Creative-technology research</h3> <p>Takes part in national research projects linking universities and industry.</p>

06 Beyond the Studio

<p>ATHLETICS</p> <h3>All-Ireland Cross Country</h3> <p>National medallist — four medals.</p>	<p>ATHLETICS</p> <h3>International — Silver</h3> <p>Medal won representing at international level.</p>	<p>MARTIAL ARTS</p> <h3>World Novice Champion</h3> <p>World title at novice level.</p>
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Away from the screen: **climbing, training, and coaching kids' soccer, GAA and hurling.**