ROBERT GERVAIS

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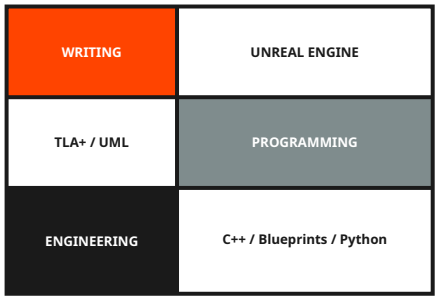
OBJECTIVE

I led documentation for Unreal Engine, and **I helped deliver the dream of desalination to fight drought**. I am a programmer, engineer, and writer who delivers elegant solutions to complex problems, and I am looking to bring my toolbox to tackle something new.

TOOLBOX



EDUCATION

Bachelor of Science in Computer Science
Real-time Interactive Simulations
DigiPen Institute of Technology (2016)

Bachelor of Science
Technology & Industrial Arts Management
Berea College (2002)

ADVISORY BOARDS

University of Washington
M.Sc. Information Management Program
Advising G.A.M.E.R. Group researchers on the development of the video game metadata schema, and sponsoring capstone projects at the iSchool.

foundry10
G.O.K.U. Metadata for Educational Games
Advising researchers on the development of a metadata schema that will enable libraries and educational institutions to categorize educational games.

CERTIFICATIONS

PSMJ Resources
Certified Project Management Professional

DPIC Companies
Liability IQ Certification for Engineers

Arm
ESE101: Embedded Systems Essentials

EXPERIENCE

Scientist 03/2025 – Present
West Yost Associates *Remote*

- **Technical Editing:** I provide technical editing services for over 30 municipal agencies across the State of CA to develop Cross-Connection Control Plans which must meet the new requirements of the State Department of Water Resources CCCP Handbook.
- **Quality Control:** I perform quality control reviews of design drawings and specifications for cross-connection control, improvement, and fire service plans, including review of SCADA systems for automated pressure reducing station design.

Education & Learning Director 2023 – 03/2025
Epic Games *Remote*

- **Leadership:** I was entrusted by executives to lead product documentation teams to unify all of the company's documentation under a single landing page experience.
- **Collaboration:** I collaborated with user experience, engineering, design, art, and business teams to provide technical direction while building Epic's first AI-enabled chatbot (Epic Developer Assistant), which will integrate directly into Unreal Engine to bring the company's unified documentation into the product as a core learning feature.
- **Communication:** I was the primary point of contact for brands (including Disney, LEGO, and Paramount) developing documentation and learning resources in partnership with Epic's unified learning platforms.

Education & Learning Lead, Fortnite 2021– 2023
Epic Games *Remote*

- **100% Feature Coverage:** I led my team to work with Fortnite's engineers, artists, and designers to ensure full documentation coverage on launch day for Fortnite Creative, Unreal Editor for Fortnite, and the Verse programming language, utilizing TLA+ to validate algorithms written in a new multi-paradigm programming language featuring concurrency constructs. During the launch post-mortem, the UX team reported that a majority of users (>90%) shared that our documentation was functional and useful on launch day for both of Fortnite's debut UGC products.
- **Top Performing SEO:** I partnered with the SEO and UX teams to ship site indices, taxonomies, and glossaries that resulted in >90% CTR on our top 100 documentation pages, including over 80% engagement rates for pages in our lowest (viewed) quartile, indicating that our community was reliably finding documentation with organic search.

Senior Technical Writer 2019 – 2021
Epic Games *Bellevue, WA*

- **Knowledge Graph:** I interviewed over 100 engineers, designers, and artists around the company to develop a comprehensive Simple Knowledge Organization System (SKOS) schema in a Neo4j database, which was leveraged to build out the Epic Developer Assistant.
- **Information Architecture:** I ran open and closed card sort exercises, interviewed representatives from every team on Unreal Engine, utilized ANOVA to analyze the company-wide card sort results, and leveraged A/B testing to design documentation information architecture for the launch of UE5.

Technical Writer 2017 – 2019
Epic Games *Bellevue, WA*

- **White Paper:** I worked with the Lead Build Engineer to record the evolution of Epic's process of developing key titles, including Fortnite, Paragon, and Battle Breakers, capturing key workflows associated with the development of UnrealGameSync, Epic's custom distributed development tool, which includes Perforce sync features, file conflict resolution, file versioning, project file generation, and optional binary builds and execution.
- **Style Guide:** While working on the white paper demonstrating the workflows and tools we used to develop and publish Fortnite, I needed to standardize our voice, tone, and style beyond the guidance offered by the Microsoft Manual of Style so I wrote Epic's first custom style guide for written documentation, which was added to the first version of Epic's Brand Guidelines, setting the standard for how EULA users and technology partners interface with Epic's intellectual property.

NOTABLE AWARDS

DigiPen Game Awards
Best Spoken Dialogue & Best Characters
Writing on Relic was voted by students in 2015 to receive 1st place for Best Spoken Dialogue and 1st place for Best Characters.

CELSOC & ACEC Awards
Engineering Excellence
The Encina Seawater Desalinated Conveyance Facilities Study was recognized for engineering excellence in 2006.

INDEPENDENT PROJECTS

Satoyama Dice
Lead Programmer
Programming a video poker simulator with Lua and writing OpenGL fragment shaders in LÖVE for mini Sudoku puzzle games set in a retro City Pop environment.

Demon Crush
Programmer & Narrative Designer
Programming gameplay systems in C++ and Blueprints, writing shaders in Custom HLSL, and designing levels in Tiled for a Paper2D pixel art beat-em up platformer game in Unreal Engine 5.

Seeds of Change
Writer
Published a 280-page post-apocalyptic graphic novel where plants are at the top of the food-chain.

OPEN SOURCE PROJECTS

Unreal Engine
Documentation
Active with open source community documentation contributions.

ArticyXImporterForUnreal
Programming
Fixing bugs for ArticyXImporterForUnreal, an open source narrative design plugin.

ZILF
Documentation
Assembling community documentation for ZILF, tools for working with the ZIL interactive fiction language, including a compiler, assembler, disassembler, and game library.

STUDENT PROJECTS

Relic
Narrative Lead & Programmer
Programmed UI in Zilch, ran writer's room, wrote all dialogue using structured XML files, directed voice over sessions, kept world building documentation, designed environments.

From Where She Dreams
Narrative Lead & Programmer
Programmed narrative systems in C++ and integrated the FMOD API for sound designers, wrote all dialogue and scripted narrative events in Lua.

Training Content Developer 2015 – 2017
Epic Games *Bellevue, WA*

- **Visual Studio Extension:** I developed a Visual Studio Extension that templatized a Diataxis approach to writing documentation. This extension was used internally by engineering and technical writing teams to automatically generate the metadata, structured markdown syntax, and template language for conceptual overviews, how-to guides, quick start guides, and reference documents, improving the quality and quantity of documentation being generated for Unreal Engine.
- **Unreal Engine Plugin:** I developed an Unreal Engine plugin for our tutorial system, enabling engineers to wrap functional engine and gameplay code into snippets that APIDocTool could ingest for the C++ API Reference Manual.

Technical Writing Intern Summer 2015
Epic Games *Cary, NC*

- **APIDocTool:** I was responsible for debugging Linux, Android, and iOS API calls into APIDocTool, building the hooks for Unreal's reflection system to detect new code being written for upcoming releases of UE4. I also maintained and extended the Code Snippet and Statistics modules as the engine grew over time.
- **FPS Sample:** I mapped classes between Unreal Tournament and Unreal Engine into UML diagrams, which enabled me to migrate legacy components from Unreal Tournament into Unreal Engine's First Person Shooter sample, writing one of the most downloaded and widely used tutorials on Epic's documentation site.
- **Engineering Methods:** Leveraging my professional engineering experience, I introduced rigorous engineering methods, including lightweight RFC processes and data driven methods for developing valuable technical artifacts in order to standardize and elevate the quality of documentation being written for Unreal Engine 4.

"With the dream of desalination, delivered, I focused my skills to document Unreal Engine."

Engineer 2009 – 2015
Aegis Engineering Management *Remote*

- **Desalination, Delivered:** With the successful bonding and construction of the largest desalination project in the Western Hemisphere, the Carlsbad "Bud" Lewis Desalination Facility was opened in December of 2015.
- **Expanded Recycled Water:** I wrote technical memorandums for municipal agencies to comply with Titles 17 & 22 of the CA Code of Regulations.
- **Validated Legal Descriptions:** I scripted tools in Python to validate plats and legal descriptions for public agencies, utilizing GIS databases to validate bearings reported by land surveyors.

Engineer 2008 – 2009
AECOM *San Diego, CA*

- **Supported Desalination:** I was a member of the team that updated engineering documents, cost estimates, and technical artifacts to provide ongoing support for agencies addressing legal challenges and regulatory reviews that challenged the construction of the planned Carlsbad "Bud" Lewis Desalination Facility.
- **Estimated Costs:** I wrote economic benefit apportionment reports for private and municipal agencies to comply with the CA Landscaping & Lighting Act of 1972 and CA Proposition 218.
- **Built Tools:** I built tools in Lisp to streamline and automate drafting tasks for designers to easily script workflows, which improved the quantity and quality of design documents.

Engineer 2003 – 2008
Boyle Engineering Corporation *San Diego, CA*

- **Planned Desalination:** On the heels of record drought conditions in Southern California, I was entrusted by senior leadership to manage 14 engineering firms to generate technical appendices for the Encina Seawater Desalinated Conveyance Facilities Study, which had an aggressive 6-month schedule from contract to completion. I provided project management support, pump station and pipeline planning, cost estimate coordination, interfacing with the desalination facility architect, writing weekly stakeholder meeting notes, developing an SQL database to track technical artifacts, and validating the hydraulic transient model in COBOL.
- **Published Specifications:** I wrote technical specifications for municipal agencies to comply with requirements set by the CA Department of Water Resources and the EPA. I also wrote legal descriptions for grants and quitclaims in accordance with the ALTA Land Surveying requirements.
- **Ran Models:** I scripted models in Fortran and ran custom hydraulic water system analyses to evaluate the configuration of proposed water systems and their suitability to serve proposed developments during fire flow and peak demand conditions.

"Omit needless words."