

Chijike Dikeogu

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Library of Alexandria | Serious Game | Game Engine: Unity Engine
<https://chijikedikeogu.com/caretaker-of-alexandria/>

11/2024 to Present
Subjective Reality Studios LLC

- Serving as **Creative Director, Programmer, and 3D Artist** on an educational game focused on reconstructing the **Library of Alexandria** and surrounding districts
- Building **interactive 3D learning spaces, quests, and research driven mechanics** centered on **source evaluation, information literacy, and historical exploration**
- Working with **academic and library partners** including **Ottawa Kansas Gangwish Library, Montana State Library, Virginia Tech, UMass, CSU Bakersfield, UT Austin, and the Kansas Library Association** to support **historical accuracy and curriculum alignment**
- Creating **teaching resources, lesson guides, and discussion materials** for **classroom and remote learning** use
- Implementing **quest, choice, and combat systems** based on **educator and librarian feedback** to improve **accessibility, engagement, and replay value**

City of the Deep Melaris | Ocean Narrative Shooter | Game Engine: Unity
<https://chijikedikeogu.com/election-game/>

09/2023 to Present
Subjective Reality Studios LLC

- Serving as **Creative Director, 3D Level Designer, and Narrative Designer** on an **anime style tactical RPG** shooter set primarily in the **deepest abyssal ocean environments**
- Designing **underwater 3D layouts, combat spaces, and environmental shader work** in **Unity**
- Supporting **multiplayer, analytics, and QA tracking** through **Microsoft Azure services**

Ley Line Princess | Isometric Action RPG | Game Engine: Unity
<https://chijikedikeogu.com/leyline-princess/>

06/2022 to Present
Subjective Reality Studios LLC

- Designing a **hybrid anime style action RPG** that combines **third person and top down camera modes, tactical party switching, and large scale nation based exploration**
- Built **more than 80 environment layouts** across **11 explorable nations**, supporting **multi region progression, worldbuilding, and layered exploration routes**
- Wrote dialogue and narrative content for **more than 650 NPCs and 493 quests**, with **visual novel style presentation and branching narrative support**
- Developed **combat systems** centered on **fast player controlled action, mouse or keyboard driven unit control, party swapping, class and subclass customization, and MMO style ability bar workflows**
- Worked with an **indie team of 14** across **3D art, level design, sculpting, texturing, narrative design, and optimization**

Election Game | Multiplayer Political Simulation | Game Engine: Excel VBA and JavaScript
<https://chijikedikeogu.com/election-game/>

Released 05/2020
Freelancer Team Project

- Designed and implemented a **multiplayer political simulation** with **turn based state capture, economic pressure, state models, economic loops, media influence systems, and decision driven outcomes**
- Integrated **real world historical and modified US election datasets from 1990 through 2021** via a **custom JavaScript API connected to Excel VBA**, dynamically updating **state populations, voter behavior, and state win possibility outcomes**
- Built **interconnected systems** where **player strategy, resource allocation, and state adjacency** produce **adaptive results and unique playthroughs**

Santa Can't Breathe on Mars | Browser Retro Arcade Game | Game Engine: Pico 8
<https://www.lexaloffle.com/bbs/?tid=36226>

Released 11/2019
Master's Team Project, UC Santa Cruz

- Shipped a **retro survival delivery game** with **reactive terrains** that dynamically blocked routes based on **player behavior**
- Owned **environment art and sound design**, creating **tiles, props, UI, music, and sound effects** entirely within **Pico 8 editor constraints**
- Scripted **gameplay and level logic** in **Lua** within strict platform limitations including **palette, memory, and in engine asset creation**

Strife Dreams | Strategy Card Game | Tabletop and Unreal Engine
<https://chijikedikeogu.com/election-game/>

Released 04/2017 for table version
Personal Project

- Designed **more than 187 unique cards** with **chess inspired passives and multiple balanced abilities per card**
- Released the **tabletop version** and continued **digital adaptation in Unreal**
- Built **morale, terrain, formation, political, and seasonal systems** focused on **positioning, planning, and player decision making** rather than randomness
- Developing **multiplayer features** through **Unreal Blueprint workflows** and **Microsoft Azure networking support**

EXPERIENCE

Remote 3D Technical Artist, 3D Environment Prop Artist and Game Designer

Subjective Reality Studios LLC, Bakersfield, CA

09/2021 to Present

- Built **modular environments, architectural assets, gameplay props**, and reusable asset libraries in **Blender 3D, Autodesk Maya, ZBrush, and Substance Painter**.
- Produced high poly sculpts, game ready meshes, retopology, UV layouts, topology cleanup, and physically based materials.
- Prepared **architectural references, designs and 3D placeholders** with **Autodesk Revit, AutoCAD, Rhino 7, and SketchUp** to establish floor plans, structural layouts, interior spaces, modular dimensions, and real-world scale before production moved into Unity.
- Generated terrain data with **World Machine, Gaea, E-on Vue, L3DT, ArcGIS, and Cesium.io**, producing height maps, erosion studies, biome distribution, water systems, and geographically referenced landscapes used during regional planning and level construction.
- Planned regional maps, exploration routes, gameplay progression, and world layouts with **Inkarnate, Cartographer 3, Photoshop, Azgaar's Generator, and Watabou's Progen Arcana** before converting concepts into **Unity ProBuilder** blockouts.
- Organized environmental layouts around player navigation, encounter placement, Environmental storytelling, sightline composition, modular construction, spatial scale, and visual readability for both 2.5D and three-dimensional projects.
- Created simulation based fabrics, banners, garments, leather materials, drapery, and architectural dressing with **Marvelous Designer** and **CLO 3D** for fantasy environments and interior scenes.
- Built **shaders** and surface materials with **ShaderMap 4, Material Maker, HLSL, SHADERed, and substance tools**, covering texture blending, lighting response, material layering, and surface variation.
- Programmed **gameplay prototypes**, environmental interactions, encounter logic, editor tools, and supporting systems with **C#, C++,**

JavaScript, Lua, **SQL**, **SQLite**, Unreal Blueprints, PlayMaker, and Unity Visual Scripting.

- Switched between **Unity**, **Unreal Engine**, CryEngine, RPG Developer Bakin, RPG Maker, Visual novel Maker, and Ren'Py according to gameplay requirements, prototype goals, and project milestones.
- **Tested gameplay systems**, environment layouts, quest progression, and narrative logic through prototype reviews and internal play sessions. Collected gameplay metrics with **Microsoft Azure PlayFab**, **GameAnalytics Data Suite**, and **Playtest Cloud** while using **Appium** and **Selenium** to automate repetitive testing tasks.
- Wrote story bibles, lore bibles, character profiles, faction records, branching dialogue, quest documentation, screenplay drafts, narrative templates, **technical documentation**, and worldbuilding references using **Articy Draft X**, Final Draft, **Natural Crit Homebrewery**, **NotebookLM**, **Adobe InDesign**, **Obsidian**, **Microsoft Office**, WordPress, World Anvil, and Legend Keeper.
- Reviewed narrative documentation for lore consistency, continuity, grammar, formatting, canonical references, production documentation, and large documentation libraries supporting characters, quests, factions, regions, settlements, and organizations.
- Created narrative production workflows covering documentation, writing, editing, review, publishing, and narrative database integration for game development teams.

Contract Biophotonics QA Hardware Test Engineer and Data Systems Developer

Apple Inc. via Mindlance Staffing, Cupertino, CA

07/2023 to 08/2023

Biophotonics R&D involved optical hardware testing, microscopy systems, sensor validation, and test-data automation for light-based biological measurement systems. This was an engineering and data role, not a clinical, hospital, or patient care position.

- **Calibrated** and operated **automated microscopy equipment** to scan transparent gel samples mounted on glass slides, recording waveform behavior, signal anomalies, **fixture performance**, and **measurement results** in Microsoft Excel.
- Examined **optical hardware** through **PCB inspection**, **SMT processing**, **cross sectioning**, **thermal cycling**, and **potting analysis** to confirm component integrity and **fixture performance**.
- Built **fixture software** and a desktop database prototype with **C#**, **SQL Server**, **PostgreSQL**, and **Docker** to consolidate **engineering data** generated by **Biophotonics fixtures** operating at two laboratory sites.
- Replaced manual USB-based data transfers by creating software that collected, translated, normalized, and stored output from multiple **fixture types**. Designed a separate **CRUD** layer for each hardware platform before routing standardized results through an isolated network into a centralized database for management.
- Prepared **technical documentation**, **standard operating procedures**, development notes, interface concepts, security recommendations and other integration plans so Apple's engineers could continue development after the contract concluded.

Contract Early Field Failure Analysis Hardware Test Engineer and Electrical Engineering Technician

Apple Inc. via Mindlance Staffing, Sunnyvale, CA

08/2022 to 03/2023

Supported AppleCare's Early Field Failure Analysis (EFA) Quality Control team through a contract with Mindlance Staffing.

- **Evaluated prerelease factory builds and customer return units** for iPhone 12 through 14, AirPods, and Apple Watch through **manual and automated hardware testing** before engineering review.
- Processed approximately **34 AirPods each day** or **20 to 45 iPhones per week**, repeating individual **test sequences** as many as 15 times to reproduce intermittent hardware and firmware failures.
- Operated more than **60 proprietary hardware test stations** dedicated to **camera systems**, **Face ID**, **NFC**, **Bluetooth**, **acoustics**, **E Noise**, **GPS**, **button pressure**, **wireless communications**, **motion sensors**, **proximity sensors**, **battery-charging**, **automotive charging**, **display systems**, and **regulatory compliance**.
- Directed devices through **state-dependent test sequences** for **camera validation** and **compliance testing** while scheduling independent stations out of order to reduce idle time and prevent conflicting test states.
- **Investigated device failures** by reviewing Apple Retail and Genius Bar reports, reproducing reported **defects**, assigning severity levels, and routing hardware to produce quality managers and the Project Coordinator for additional **engineering analysis**. Contacted Apple Retail locations and customers whenever additional information was required.
- Verified AirPods firmware installation, rollback, and update behavior **across repeated test cycles**, confirming stable operation without data loss, installation failures, or firmware corruption.
- Completed **environmental and regulatory testing** covering water ingress protection, fire resistance, electrical safety, warranty integrity, and government certification requirements.
- Examined hardware with **Matrix X2.5L industrial PCB X-ray inspection equipment** together with **Keyence two-dimensional and three-dimensional digital microscopy** to locate **solder defects**, **PCB trace failures**, **ball grid array defects**, **voids**, **corrosion**, **battery failures**, and misaligned components hidden beneath surface mounted devices.
- Measured AirPods **motion sensor accuracy** and wireless performance with enclosed rotational **test systems** that simulated continuous real world movement while monitoring Bluetooth stability, software behavior, and **electronic reliability** throughout controlled orientation changes.
- Recorded **test results**, **engineering observations**, and **failure reports** in FileMaker, Apple Radar, and Apple Manufacturing Insight for **engineering tracking and defect investigation**.
- Revised and audited **SOPs** covering **fixture operation**, **calibration**, **laboratory safety**, and **Gage R&R** requirements.
- Wrote **technical documentation** with Apple Pages and Quip for storage in Box Cloud while coordinating **engineering updates**, escalations, and status reports across multiple Apple organizations through Slack and email.
- **Calibrated hardware fixtures** on daily and weekly schedules, prepared stations for new product generations, and compared results against **known good reference units** to distinguish **fixture faults** from **device failures**.
- Operated **security validation stations** that detected rooting, unauthorized device entry, air leaks, and warranty violations while adjusting **robotic microphone system**, **accelerometers**, **gyroscopes**, **pressure sensors**, and other **precision measurement equipment**.
- Prepared hardware for reassignment, inventory storage, and shipment to other Apple facilities by removing internal Apple software, confirming component completeness, and generating shipping labels and tracking information in FileMaker.

KiSoft Automation Systems Specialist and Assistant eCommerce MFC Operations Manager

Safeway, San Jose, CA

11/2019 to 07/2022

- Monitored automated grocery fulfillment, corrected transaction issues, substitutions, and account discrepancies, while sustaining daily production of approximately 130 to 200 customer orders, or 800 to 900 orders each week.
- Managed **automated retrieval**, manual picking, and final order consolidation through **KiSoft WMS**, **KiSoft SCADA**, and Snowflake Retail Data Cloud across **OSR Shuttle Evo systems**, **autonomous mobile robots**, conveyors, and **RFID** tracked storage locations.
- Resolved shuttle misroutes, **conveyor jams**, **tote elevator lockouts**, **sensor identifier conflicts**, **power interruptions**, and **weight sensors** drift by **recalibrating robotic equipment**, correcting **SCADA faults**, and adjusting storage parameters to increase picking accuracy and reduce tote fragmentation.
- **Inspected automated storage and retrieval equipment**, conveyors, lifts, and belt systems while handling storage defragmentation, SKU placement, and capacity balancing to shorten retrieval times and reduce unnecessary tote movement.
- Directed day and night eCommerce teams through **system deployment**, employee training, production startup, and daily operation of the KiSoft automated fulfillment center.
- Partnered with Takeoff Technologies and **KNAPP engineers** through Zendesk cases, **live diagnostics**, **onsite troubleshooting**, and **system reviews** while revising **Standard Operating Procedures** and instructing teams on KiSoft operation, RFID scanning, tote labeling, and food handling practices for ambient, refrigerated, and frozen inventory.

- Coordinated dispatch activity between Safeway transportation operations and third party delivery partners, including DoorDash, Instacart, Uber, Grubhub, Shipt, Point Pickup, AxelHire, and Waymo.

Technical Support and Web Digital Media Developer

Ottawa University, Ottawa, KS

02/2017 to 07/2018

- Designed, built, updated, and administered university websites and satellite campus pages with Jenzabar CMS, HTML5, CSS3, JavaScript, Figma, and Adobe XD in accordance with departmental standards.
- Resolved **Windows**, **macOS**, tablet, classroom projection, login, and website issues through **Zendesk**, phone, and email while managing account provisioning, permissions, technical records, and **Standard Operating Procedure** revisions with **Active Directory**, **Group Policy**, **Windows Server**, and **ITIL** practices.
- Coordinated **DNS**, **DHCP**, **SSL**, and **TCP/IP** changes with librarians, software teams, and outside vendors, including EBSCOhost, to maintain access to library and research systems.
- Directed digital preservation during the university library's relocation by converting cassette recordings, VHS media, interviews, and special collections into searchable digital archives with Roxio Creator, Sony Vegas Pro, After Effects, FL Studio, Pro Tools, and Audacity. Improved audio quality, video quality, subtitles, navigation, and archive records throughout the project.
- Installed, **repaired**, and **upgraded** desktop computers, laptops, routers, switches, VoIP systems, firewalls, network cabling, software, and **IBM Z server infrastructure** while assisting with **data migration** and campus technology projects.

ArcGIS Software Developer and Land Conservation Assistant

Kansas Land Trust, Lawrence, KS

09/2010 to 01/2011

- Automated GIS and cartography tasks with **Python** and **ArcPy**, reducing repetitive map editing and improving management of statewide geographic data.
- Evaluated land parcels in ArcGIS to identify conservation priorities and prepare planning material for the Conservation Director.
- Compiled ecological, recreational, historical, and agricultural records in Microsoft Access and Excel before preparing conservation reports and supporting documentation.

EDUCATION

- Bachelor of Arts (BA), Management Information Systems** | Ottawa University, KS | 01/2019

TECHNICAL SKILLS

3D MODELING, ENVIRONMENTAL ART, AND REAL-TIME VISUALIZATION SKILLS

3D Modeling & Sculpting Tools: Blender (Primary), Autodesk Maya, ZBrush, Cinema 4D, Cascadeur, Plasticity, ShapeLab, Instant Meshes, CLAV1CULA, Zmodeler, Verge3D

Vegetation, Terrain, and Worldbuilding Tools: SpeedTree 9, Treelt, World Machine, Gaea, Vue, L3DT, Earth Sculptor, ArcGIS, Cesium.io, Inkarnate, Cartographer 3, Azgaar's Fantasy Map Generator, Watabou's Progen Arcana, Aerialod

Cloth, Fashion, and Simulation Based Environment Detail: Marvelous Designer (Primary), CLO 3D, cloth simulation, fabric behavior setup, drapery and banner creation, garment visualization, leather simulation, layered fabric material simulation, environmental cloth detailing

Texturing, Materials, and Shader Tools: Substance Painter, ShaderMap 4, Material Maker, Materialize, ArtEngine, ucpaint

Lighting, Rendering, and 3D Visualization Tools: Twinmotion, Maxon Redshift, Lumion, Octane Renderer, Light Tracer

Effects, Atmosphere, and Real-Time Visual Development: EmberGen, BlastFX, TouchDesigner

Real-Time Visualization and Development Environments: Unity Engine (Primary), Unreal Engine, CryEngine, UPBGE, Wicked Engine, Wave Engine, CopperCube, FalcoEngine, Flare, MANU engine, RPG Maker, Ren'Py, RPG in a Box, RPG Paper Maker, Pico-8, GB Studio 3, RPG Developer Bakin

Digital & 2D Art Tools: Adobe Photoshop, Clip Studio Paint, ArtRage, Aseprite, Piskel, PixiEditor, Game Texture Viewer, Sprite Fusion, Sprite Illuminator, Texture Packer, Lighter texture map editing, concept sketching, sprite creation, compositing

CAD, TECHNICAL DESIGN, AND LEVEL PREPRODUCTION SKILLS

Technical Design and CAD Tools: Autodesk Revit (Primary), AutoCAD, Rhino 7, Autodesk Forma, Mastercam

Technical Design Skills: blueprint referencing, structural interior planning, real-world scale validation, modular building layout design, architectural visualization, drafting, mechanical reference modeling, 3D scientific visualization, product visualization, game level preproduction

DOCUMENTATION SKILLS

Narrative Design Workflow Tools: Natural Crit Homebrewery, World Anvil, Legend Keeper, Final Draft, NovelAI, Articy Draft X CMS, Articy Flow Editor, Articy Template System, Articy Localization Manager, Articy Game Object Database, Articy Macro Development Kit (MDK), WordPress

Narrative Documentation Systems: Conditional Event Scripting, Narrative Flow Mapping, Narrative State Management, Narrative QA and Testing, Narrative Structure Design, Branching Story Logic, Dialogue System Planning, Lore Documentation, World Structure Databases

Structured Documentation Artifacts: Design Documentation, SOPs, System Documentation, Technical Writing, Reference Guides, Style Guides, Asset Requirements, Art Bibles, Lighting Sheets, Shader and Rigging Guidelines, Story Bibles

Technical Documentation Systems: Obsidian, Quip, Office 365, Google Workspace, Excel, Gamma, FrameMaker, Adobe InDesign

PROGRAMMING AND TECHNICAL ART SKILLS

Programming & Scripting Languages: C# (Primary), JavaScript, CoffeeScript, Lua, Swift, VBA, C++, Python, Visual Studio Code

Application Development Frameworks and Libraries: .NET, ASP.NET Core, .NET Base Class Library, Blazor

Database Languages and Systems: SQLite (Primary), SQL, PostgreSQL

Shader Languages and Tools: HLSL, SHADERed

Visual Scripting and Node-Based Systems: Unreal Blueprints, PlayMaker, FlowCanvas, Unity Bolt, Unity Visual Scripting, Schematyc, Bifrost Graph, Dynamo, RPG Maker Event System, Bakin Event System, node-based material prototyping, node-based logic prototyping

SOFTWARE QUALITY ASSURANCE SKILLS

End-to-End QA testing: manual, functional, regression, stress, soak, nonfunctional, ad hoc, white box, and black box testing across PC, mobile, VR, and Oculus environments

Automation and Test Systems Tools: Appium, Selenium, PlayTest Cloud, Postman, RPA frameworks

Automation Skills: automated test execution, automated QA pipeline support, test system troubleshooting, industrial control troubleshooting

Electronic Triage, Defect Tracking, and QA Reporting Tools: FileMaker, Apple Radar, Apple Manufacturing Insight, Microsoft Excel

Triage, defect tracking, and QA reporting skills: device triage, failure reproduction, severity ranking, defect tracking, QA data governance, data stewardship, data privacy compliance, anomaly logging, test result recording, reporting

QA Database and Lab Data Systems Skills: desktop database prototyping, CRUD layer design, file parsing, result normalization, centralized data collection, query tool development, storage editing support, custom UI navigation for lab data oversight

Game QA Reporting & Analytics Capture Tools: GameDriver.io, GameAnalytics Data Suite, Microsoft Azure PlayFab, Camtasia, Sony Vegas Pro

2D & 3D Environment Validation (Game QA): Collision and navigation mesh testing, lighting and shadow consistency, texture and UV validation, shader and material optimization, LOD (level of detail) transitions, and environmental interaction testing

Project Management and Version Control Tools: Microsoft Project, Box.io, Dropbox, Unity Cloud, Perforce, Jira, Trello, HacknPlan, Codecks,

Process Design and Systems Thinking Tools: Microsoft Power Automate, Machinations.io, Draw.io, Miro