

Desmond W. Clay

Versatile Technologist & Proven Leader

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At a Glance

- ✔ Full-Stack Development
- ✔ Generative & Agentic AI
- ✔ Workflow Automation
- ✔ Leadership & Team Management
- ✔ People Management (All Ages)
- ✔ Customer Relations & Cash Handling
- ✔ Mentoring & Training
- ✔ Adaptability & Rapid Learning

Core Competencies

Languages & Frameworks

Python, Flask, JavaScript, HTML/CSS, GDScript, **SQLAlchemy**

AI & Data

AI/LLM Integration, **API Integration**, Data Validation, **Cryptography Concepts**, Audio Signal Processing, RAG, NLP

Tools & Platforms

Git/GitHub, Docker, Godot Engine, Leap Motion SDK, **Google Cloud Platform**

Professional Skills

Leadership, Team Building, **Operational Management**, Process Improvement, Client Relations, Communication

Applied Interests

Creative Engineering

Exploring digital fabrication, **prototyping**, and composing with MIDI.

System Automation

A constant search for opportunities to build tools that streamline **repetitive tasks**.

Continuous Learning

A natural drive to deconstruct complex systems and acquire **new skills**.

Professional Experience

2025

Assistant Manager | Byrne Dairy

Manage daily store operations and lead a small team, providing guidance and training to foster a **collaborative and productive** work environment.

2021

Activities Team Lead | Betsy Ross Nursing Home

Led a team to design engaging social activities for residents, demonstrating **planning and interpersonal skills** with elderly populations.

2021

Delivery Driver | Instacart & DoorDash

Demonstrated exceptional **reliability and time management** in independent, customer-facing roles.

2020

D-Net Lab | Freelance Development

Provided freelance technology solutions, including custom software and hardware development, demonstrating a commitment to continuous learning and self-driven **project development**.

2020

Summer Camp Coach | Rome's Best

Provided a safe and positive environment for children, supervising and engaging with groups of up to 30, requiring **discretion and patience**.

2019

Full-Stack Developer | Local Janitorial Company

Held a dual role, applying technical skills to build and maintain websites while also performing **warehouse operations** and janitorial duties.

2017

Sales Supervisor | Harbor Freight

Built and led a dynamic sales team, managed daily operations, and excelled in **customer relations** by skillfully resolving disputes.

2015

Associate | Thrifty Shopper

Key holder position responsible for opening/closing, running register, and assisting customers.

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Selected Projects

AutoAgent: Autonomous AI Platform

A web-based platform to deploy an autonomous AI agent for complex tasks like research and coding. Showcases skills in **Full-Stack Development** and AI model integration.

Python

Flask

Generative AI

PureNums: Quantum Number Generator

A command-line tool that generates verifiably random numbers sourced from the quantum vacuum. It uses an academic API and purifies the results using cryptographic hashing to ensure **high-quality randomness**.

Python

API Integration

Cryptography

LangAdventure: AI Language Learning RPG

An interactive, web-based roleplaying game for practicing Japanese language skills, featuring an AI Dungeon Master that generates a **dynamic, dual-language story**.

Python

Flask

AI/LLM

AirControl: Gesture-Based Computer Control

A Python application using a Leap Motion sensor for computer control with hand gestures. Demonstrates skills in **Hardware Interfacing**, SDK integration, and algorithm design.

Python

SDK/API

Hardware

Tactical AI: Real-Time Gaming Assistant

An AI that uses computer vision to recognize objects in a game environment and provide tactical advice. The model was trained on gameplay footage to distinguish between friend and foe, showcasing practical **machine learning** application.

Python

OpenCV

Computer Vision

Adv2DComponents: Godot 2D Components

A collection of reusable, data-driven components for the Godot Engine, designed to accelerate 2D game development by providing a modular framework. Highlights skills in **Game Architecture** and tool development.

GDScript

Godot

Game Dev

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