

## § Coranna Howard

A programmer and artist from the Seattle, Washington area, Coranna is skilled in technical writing, vocational teaching, data architecture & reverse-engineering, modern computer graphics systems, software repackaging, and the design & implementation of low-level APIs.

## § professional work

¶ self-employed — Tacoma, WA, U.S.A.

» **2014–present** — personal, gigs

Developing [Quanta](#) and [togo](#), tackling gigs in a medley of fields, helping fellow programmers, running amok with far too many crafts, opinionating on tech culture, and learning new sub-fields.

¶ [Austin Powder](#) — Cleveland, OH, U.S.A.

» **2011–2014** — software repackaging

Architect of packaging methodology & repository of 675+ packages (approximately 211 products across 75 vendors) for a network of 850 Windows computers. Documented methodology & structure and taught the art of repackaging. Wrote utilities for IT in VC++, JScript, and CMD.

» **2008–2009** — IT

Three small contracts for hardware and software deployments. Built cross-platform software to track assignment & progress of deployments and to allow the project manager to securely share user info with the technician.

» **~2005–2008** — IT

Numerous small jobs to keep the gears turning: utility software (in C#, C++, Visual Basic 6.0 + .NET, BlitzMax, JScript/WSH, and Windows CMD), software & hardware deployment, documentation, and user support.

## § www

**email** [me@komiga.com](mailto:me@komiga.com)  
**github** [github.com/komiga](https://github.com/komiga)  
**website** [komiga.com / resume](https://komiga.com/resume)  
**updated** 2017-10-14

## § skills

C, C++, C#	CMake, Premake
Lua, Python	Linux, POSIX
Java, HTML	Windows, WinAPI
Clang, GCC	Visual Studio
Bash, CMD	Excel, GSheets
OpenGL, LOVE	Blender, GIMP
GLFW, SDL	MSI, InstallShield
git, GNU Make	Android SDK

## § volunteer work

¶ Linux videogame QA

» **'12–'14** — Humble Inc., 17 games  
» **'12** — Santa Ragione, [Fotonica](#)  
» **'12** — Subsoap, [Faerie Solitaire](#)

¶ scientific research

» **'15–present** — HCI thesis on trans people and speech training (*identity withheld to prevent deanonymization*)

## § background

» **'13–'14** — [Algorithms, Part II](#)  
» **'13 × 2** — [Algorithms, Part I](#)  
» **'11** — *Repackaging and Application Migration using AdminStudio 9.5*  
» **post sec., CS** — autodidact  
» **K-12** — autodidact / homeschool  
» **English** — C1-C2, U.S.–U.K. hybrid  
» **French** — A1, Standard/Metro.  
» **Japanese** — sub-A1, Eastern

## § portfolio

- » '16 — [sounds for contemplating the universe](#), a soundtrack for stargazing (*Fermi Paradox Jam*)
- » '14 — [Kaleidograph](#) (*stills*), an interactive generative art program (*JavaScript, p5.js*)
- » '14 — [Onomo](#), a slow, dark platformer concept (*Ludum Dare 30, Lua, LÖVE, 34.7h*)
- » '13 — [Prisma](#), a color-based twitch puzzler (*Ludum Dare 26, Lua, LÖVE, 35.1h*)

## § code

- » [togo](#), app & game super-library (*C++, Lua*)
  - Data-oriented design, open types, open interfaces.
  - Digestible alternative to the C++ Standard Library.
  - Game engine (WIP) with pipeline tooling.
  - Imaging and windowing.
- » [Quanta](#), adaptive tracking toolkit (*C++, Lua*)
  - Expressive time and nutrition tracker, WIP Android companion.
  - Universal description language (English read- & write-able).
  - Extendable, rapid-iteration tooling and data analytics with Lua.
  - Linux integration (CLI tools, data vessels).
- » [Pickle](#), static site generator (*C++, Lua*)
  - Non-dogmatic; user controls structure.
  - Lua-based template language and userspace.
  - Bare-bones web server for rapid iteration.
- » [precore](#), Premake 4.4 extension (*Lua*)
  - Modularity & reusability layer atop Premake.
- » [igen](#), C++ interface generator (*Python*)
  - Generates function declarations (preserving docs) from their implementations using libclang.
- » [include\\_sort](#), C & C++ #include sorter (*Lua*)
  - Sorts #include statements in user-defined order.

## § contributions

- » [mooege](#),<sup>†‡</sup> *Diablo 3* server (*C#, '11*)
  - Networking (Battle.net, game layer), game world, Linux support.
  - Asset RE, packet RE, Protocol Buffer implementations, documentation.
  - Designed prospective production-grade server architecture.
  - Later: PR arbiter/project manager, working with many important contributors.
  - Co-architect alongside Hüseyin Uslu.
- » [ParkPoints](#), gamified park participation app (for the *Parks and People United Through Technology* hackathon by Metro Parks Tacoma, '17)
  - Joint with Andrew Dickinson, Grace Bergman, Jasmine Scott, Krystaal McClain, and Robin Choi.
- » [spirv](#),<sup>†</sup> binary SPIR-V codec (*Go, '15*)
  - Implementation of the provisional specification.
  - Contributed fixes upstream (to Khronos).
  - Co-architect alongside Jim Teeuwen.
- » [Maximus](#),<sup>†</sup> module manager (*BlitzMax, '10*)
  - Core architecture and command-line client.
  - Joint project with Christiaan Kras, who maintained GUI client & web service.
- » [Pygments](#) (*Python*)
- » [libc++](#) (*C++*)
- » [GLM](#) (*C++*)
- » [gltext](#) (*Go*)
- » [SPIR-V Specification \(provisional\)](#)
- » [Golang Specification](#)
- » [Elixir Getting Started tutorial](#)

† — Defunct.    ‡ — [Commit history](#).