§ Coranna Howard

Coranna is a programmer & multi-media crafter from the Seattle, Washington area. She's obsessed with systematic simplicity, writing beautiful code, cats, and the finer details.

Her experience highlights: software management, design exploration, tech consultation, technical writing, vocational teaching, data architecture & reverse-engineering, graphics systems, software repackaging, and the design & implementation of cohesive systems.

§ professional work

¶ self-employed — Tacoma, WA, U.S.A.

» **2014-*present*** — personal, gigs

Building accessible civic software, Quanta, and togo, running amok with many crafts, and learning new sub-fields.

¶ Pierce College — Lakewood, WA, U.S.A.

» **2017–2018** — Clubhouse Specialist

Supervised students and maintained tech in an Intel Computer Clubhouse at a middle school.

¶ 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 & progess 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
github	github.com/komiga
website	komiga.com / resume
updated	2019-06-04

§ skills

C, C++, C♯	Premake
Lua, Python	Linux, POSIX
JavaScript, HTML	Windows, WinAPI
Clang, GCC	Android SDK
Bash, CMD	Visual Studio
OpenGL, LÖVE	Excel, GSheets
GLFW, SDL	Blender
git, GNU Make	MSI, InstallShield

§ volunteer work

¶ Linux videogame QA

» **'12-'14** — Humble Inc., 17 games
» **'12** — Santa Ragione, Fotonica
» **'12** — Subsoap, Faerie Solitaire

¶ scientific research

» **'15–'17** — participant in 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*, hybrid dialect; first

§ 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.

» **Super Transmuter**, build tool *(C++, Lua)*

- *Forthcoming.*
- General-purpose build tool using Lua as a DSL.
- Modular & extendable.

» 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

» Project Spectra, voice training software for trans & gender non-conforming people *('**18–present**)*

- *Work in progress.*
- Architecture, tech consultant, design exploration.

» mooege,[†‡] *Diablo III* server *(C♯, '**11**)*

- PR arbiter/project manager, working with many important contributors.
- Networking (Battle.net, game layer), game world, Linux support.
- Asset RE, packet RE, Protocol Buffer implementations, documentation.
- Designed prospective production-grade server architecture.
- 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,[†] binary SPIR-V codec *(Go, '**15**)*

- Implementation of the provisional specification.
- Contributed fixes upstream (to Khronos).
- Co-architect alongside Jim Teeuwen.

» Maximus,[†] 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.

§ art

» '**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)*