

James Martin

Renton, WA 98056 — jtmar@lijero.co — 1-206-660-7633

Website — GitHub — LinkedIn

Programming

Technical Skills

- **Languages:** Java, C#, Haskell, Racket (Scheme, Lisp), HTML, CSS
- **Tools:** Git, Eclipse, Emacs
- **Bug squashing:** GitHub issues
- **Documents:** Microsoft Office (incl. Word, Excel, PowerPoint)

Systems

Server Skills

- **TLS & Certs:** A+ rating on SSL Labs, ECDHE, RSA, Let's Encrypt, DNS CAA, OCSP, HSTS
- **Operating Systems:** Linux (esp. Debian, desktop & server), Windows (XP, 7, 8)

Protocols

- **Can write packets by hand:** HTTP
- **Implemented:** HTTP, IRC, Minecraft Protocol, and protocols I have made myself
- **Very familiar:** IP, TCP, UDP, TLS/SSL, HTTP/2

Major Projects

- **Games**
 - **Minecraft clone**, written in C# using the Unity game engine
 - * **Procedural content generation** using Simplex noise
 - * **Networked multiplayer** mostly implemented
 - * **Hand-written mesh generation** and optimization
 - * Map editing and world save files
 - **Mario-like platformer** game with a map editor and saving
- **Language Extensions:** An **event system** for Java using reflection
- **Programming Language Implementations:** Dozens of **Lisps**

Education

Formal

2015 - Present — Hazen High School

- Multiple college-level and honors courses, including AP Computer Science
- GPA (4.0 scale): 3. TODO WHEN GRADES RELEASED

Independent

In addition to previously listed skills, I have obtained:

- Intimate familiarity with **how computers function at a low level**
 - **CPU design**
 - **Operating systems:** Kernels, memory management, scheduling, syscalls, filesystems, BIOS/UEFI, boot-loaders
- **Deep understanding of programming languages**
 - **Compiler construction** and interpreters
 - **Type theory** (polymorphic, dependent, linear, noncommutative) is the logic and structure
- **Logic:** Classical logic, sequent calculus, etc

Experience

2017 - Present — Java Developer — *Hazen Robotics Club*

- Built **foundational abstractions** that drive the entire codebase
- **Dramatically simplified** the manual control mode by implementing a dataflow system
- **Lead programmer** for the autonomous AI-driven mode
- **Improved organization and productivity** by introducing and teaching Git to the team

2012 - 2015 — Java Developer, Admin, Owner — *The Mining Dead*

- Began at **eleven years old**
- Managed a **community of hundreds**, 60+ concurrent connections at peak hours
- **Wrote custom functionality**, the main features of the server, with many thousands of lines of code
- Ran custom **Linux VPS paid for by the community**
- Used web servers and the “Bungee” reverse-proxy, Technic Solder content distribution