





Aaron Skeels

Aerospace Engineer
Software Developer

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EDUCATION

B.S. Aerospace Engineering
Emphasis Astronautics
(Summa Cum Laude - 3.82 GPA)
Cal Poly Pomona
 2019-2022  Pomona, CA

HARD SKILLS



- Java, C++, JS, Node.js, Express
React, Nodemon, Git, Liquid
UE5, Arduino, RaspberryPi
MatLab, SolidWorks
- Calculus, Differentials, Linear
E&M, Thermo, Nuclear
Fluid Dynamics, Orbital Mechanics

SOFT SKILLS

Leadership/Competency:
PTK **VP of IT**
Comp Sci Club **Head**
CubeSTEP Thermal **Lead**
Rocketry & Robotics **Lead**
Emrys Space Design Thrml/Pwr **Lead**

WORK EXPERIENCE

Freelance Software Developer (Spigot)

 2012 - Current  aaron skeels .work /spigot

- 300k+ downloads on Java-based modifications to a Minecraft server framework called Spigot.
- Open source code hosted on GitHub for collaboration with community feature/bug pull requests.
- Personal cross-disciplinary tech innovations have driven the culture and paved the way for countless "inspired" publishings (which was the goal from the beginning).

Engineering Intern (The Pilot Group)

 2016 - 2016  Montclair, CA

- Trained in 3D design (topology), blueprinting, and 3d modeling/CNCing on SolidWorks.
- Trained in hand machining sheet metal and wood.
- Handed fully custom five-figure project blueprints and allowed to handcraft three of them independently for international partners. Project unified all lessons by including blueprint reading, CNC machining, hand machining, outsourcing of parts, and construction.

PROJECTS - (A fully detailed project list can be found at aaron skeels .work /projects)

- **Personal Site** (Node.js, React, Vite)
Created a portfolio site to host documentation on past project progress, challenges, and achievements.
- **Spigot Plugins** (Java, Git)
Achieved 300k downloads modding the Spigot Minecraft server framework. GitHub and Discord allow community feedback, pull requests, bug reports, etc.
- **Fall Guys Clone** (UE5, C++, Blender)
Dedicated 3 days to replicating Fall Guys including modeling, rigging, animations, material textures, level design, and fundamental gameplay from scratch.
- **Nail String Art** (JS, Java)
Developed software that calculates how best to thread string between a circle of nails to recreate an input image. Handles 1250x1250 compute space with 250 nails (best available online).
- **CubeSTEP Report** (RaspberryPi, Linux, C++)
Sole authored Critical Thinking Report for JPL on 'The Development, Manufacturing, and Testing of the CubeSTEP Satellite'. Achieved contract to design, manufacture, and produce a functional cubesat for their current NDA payload and future payloads.
- **High Speed Fluid Dynamics Simulation** (MatLab, Simulink)
Simulated supercritical airfoil performance across differing angles of attack. Self-derived formulas, proving formulas given by professor's answer key were wrong.
- **Misc Other Projects:** Shopify Clothing Brand, LED Protocol Sniff & Reverse Engineering, ToneJS Based Music Synthesizer, Autonomously Administrated College Discord Server, ECDH AES-256 E2E Encryption Chat, SQLite Login Service, Laser Eye Tracker, & many others in detail @ aaron skeels .work /projects.