Nigel Baillie

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Born April 11th 1995
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Education

Winter 2019 Fall 2016	**University of Michigan** • **Major:** Computer Science Engineering. • Taken courses in data structures, algorithms, and video game development. • Worked with team of 4 to complete full multiplayer game for final project.
Winter 2016 Fall 2012	**Washtenaw Community College** • Attended from second half of highschool through first half of college. • Taken courses in Java and web development.

Employment

Present Winter 2014	**Intermediate Developer at Ann Arbor T-Shirt Company** • I develop features and fixes in a team of 2–3 for quote building software, production tracker, and retail back end using **Ruby on Rails**. • Wrote mobile app for quick pricing using **React Native**. • Proposed and implemented **unified authentication** system to provide a single sign-in for all in-house apps. • Built image composition tool that out-performs ImageMagick at generating t-shirt mock-ups by about $1.5\times$ using **C++** and libpng. • Migrated old **AWS** infrastructure to use AWS Virtual Private Cloud. • Utilized several 3rd party APIs for services including Shopify, Amazon, PayPal, and more.

Hobby

Present 2011	**Miscellaneous Game Development** • Made video games for 3 **Ludum Dare** competitions (solo) and 1 jam (team.) • Developed pixel-perfect platformer **collision detection** system based on collision in old Sonic the Hedgehog games for Sega Genesis. • Implemented a lockstep-like **networking** protocol for said platformer using raw UDP (and TCP) sockets. • Built a small 2D sprite renderer in the **Rust** programming language using **OpenGL**. • Wrote a runtime **JVM bytecode** injection routine for a Minecraft mod to disable entity collision.