

Summary	<p>I'm a generalist programmer, enthusiastic learner, and experienced communicator with 12 years of professional programming experience in a broad variety of demanding technical environments. In my next role, I'm looking to provide tailored tooling solutions to game developers and artists.</p>
Skills + Languages	<p><b>Full-Stack Web Development, Cloud Architecture, Identity Management, Tooling, UX, Functional Design, Product Management</b></p> <p>TypeScript/JavaScript, Clojure/ClojureScript, Terraform, Java, Kotlin, Rust, C, Erlang, Haskell, Lua, C#/F#, Git, HTML/CSS, Web Components, React, SQL, NoSQL, GraphQL, Datalog, FRP, SAC, ECS, AWS, Azure, GCP, JIRA, Agile, Scrum, Kanban, GTD, PKM, Zettlekasten</p>
Experience	<div><div><b>Co-founder, Principal Architect, Design Lead — NuID, Inc.</b></div><div>2017-2022</div><div><ul style="list-style-type: none"><li>+ Designed and implemented an elastic, highly available authentication API and web-based developer portal using Clojure, Java, Typescript, React, Terraform, and AWS (Lambda, SQS, SNS, S3, EC2, Dynamo).</li><li>+ Led small, distributed teams across product development, engineering, and design, which were responsible for onboarding thousands of users to our zero-knowledge authentication service and public key infrastructure.</li><li>+ Increased the productivity of our developer organization by adhering to web standards and frameworks, cost-optimized cloud-native architecture, Agile methodologies, CI/CD, live previews, Git, and infrastructure-as-code.</li><li>+ Collaborated with professor of cryptography and ACM Fellow Jonathan Katz to develop a zero-knowledge authentication protocol for which we were granted patents US 10880089, 11496310.</li></ul></div></div> <div><div><b>Data Scientist — Microsoft</b></div><div>2015-2017</div><div><ul style="list-style-type: none"><li>+ Led development and analysis of a machine learning model for device age, informing high-level Windows 10 marketing and delivery strategies across the Windows organization.</li><li>+ Wrote and maintained data pipelines in Apache Spark and Hadoop-like architectures powering insights dashboards relied upon by our senior leadership and the CTO of the Windows and Devices Group.</li><li>+ Designed and implemented a compiler and toolchain in C#/F# to improve metric accuracy, reliability, and compute efficiency.</li></ul></div></div> <div><div><b>Software Engineer — Rustici Software</b></div><div>2013-2015</div><div><ul style="list-style-type: none"><li>+ Contributed to open-source eLearning libraries and browser extensions to increase adoption of an emerging specification and establish new revenue streams for our team.</li><li>+ Designed and implemented an open-source conformance suite for testing new and existing library implementations, leading to an ecosystem-wide improvement in compatibility and improving the visibility of our products.</li></ul></div></div>
Education	<div><div><b>M.S. Computer Science — Vanderbilt University</b></div><div>2013-2015</div><div><ul style="list-style-type: none"><li>+ Thesis: <i>Design Patterns in Concurrent and Asynchronous Systems</i></li><li>+ Project: <i>Distributed Online Record Linkage</i></li></ul></div></div> <div><div><b>B.S. Computer Science — Vanderbilt University</b></div><div>2011-2015</div><div><ul style="list-style-type: none"><li>+ GPA: <i>Cumulative 3.777/4.0 — Major 3.854/4.0 — M.S. 4.0/4.0</i></li><li>+ Completed B.S. and M.S. in 4 years</li><li>+ Fine art minor focusing in drawing and printmaking</li></ul></div></div>
References	<p><b>J.D. Hollis</b> — jd@theconsultingcto.com</p> <p>+ Collaborator on infrastructure at NuID</p> <p><b>Pallavi Baral</b> — pabaral@microsoft.com</p> <p>+ Manager and team lead at Microsoft</p>
Interests	<p>Hiking, Printmaking, Programming Languages, Game Design, Mereology, Music</p>