

Summary	I'm a practiced software engineer, enthusiastic learner, and intuitive communicator with 12 years of professional programming experience in a broad variety of demanding technical environments.
Skills + Languages	Full-Stack Software Engineering, Data Engineering, Cloud Architecture, DevOps, Product Management Java, C#, Python, Go, Rust, C, Clojure, TypeScript, Lua, Erlang, Haskell, OCaml
Experience	Founder, Principal Software Engineer — NuID, Inc. 2017-2022 <ul style="list-style-type: none">+ Designed and implemented an elastic, highly available authentication API and web-based developer portal using Java, TypeScript, AWS, and Terraform.+ Designed and implemented a cloud-native developer experience within AWS enabling on-demand development environments, stateful integration testing, live previews, progressive delivery, and structured observability.+ Led development and maintenance of open-source front-end and back-end libraries in Java, JavaScript, Go, Ruby, and Clojure, helping hundreds of developers integrate our authentication API into their projects.+ Hired and led small, distributed teams across engineering and product development which were responsible for onboarding thousands of users onto our authentication service and public key infrastructure.+ 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. Data Scientist — Microsoft 2015-2017 <ul style="list-style-type: none">+ Implemented and maintained data pipelines in Apache Spark and Hadoop-like architectures powering insights dashboards and analyses relied upon by our senior leadership and the CTO.+ Led engineering and deployment of a machine learning model for device age, informing high-level Windows 10 marketing and delivery strategies across the Windows organization.+ Designed and implemented a compiler and toolchain in C# for describing compute workflows that improved metric accuracy, reliability, and compute efficiency across our team. Software Engineer — Rustici Software 2013-2015 <ul style="list-style-type: none">+ Contributed to open-source eLearning libraries and browser extensions which increased adoption of an emerging eLearning specification and established new revenue streams for our team.+ Designed and implemented an open-source conformance suite for testing new and existing specification implementations, leading to an ecosystem-wide improvement in compatibility and improving the visibility of our products.
Education	M.S. Computer Science — Vanderbilt University 2013-2015 <ul style="list-style-type: none">+ Thesis: <i>Design Patterns in Concurrent and Asynchronous Systems</i>+ Project: <i>Distributed Online Record Linkage</i> B.S. Computer Science — Vanderbilt University 2011-2015 <ul style="list-style-type: none">+ GPA: <i>Cumulative 3.777/4.0 — Major 3.854/4.0 — M.S. 4.0/4.0</i>+ Completed B.S. and M.S. in 4 years+ Fine art minor focusing in drawing and printmaking
References	J.D. Hollis — jd@theconsultingcto.com <ul style="list-style-type: none">+ Collaborator on infrastructure at NuID Pallavi Baral — pabaral@microsoft.com <ul style="list-style-type: none">+ Manager and team lead at Microsoft
Interests	Hiking, Printmaking, Programming Languages, Game Design, Mereology, Music