

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	Founding Engineer — NuID, Inc. 2017-2022		
	+ 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 cheap, 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		
	+ 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		
	+ Contributed to open-source eLearning libraries and browser extensions to increase adoption of an emerging eLearning specification and establish new revenue streams for our team.		
	+ 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.		
Education	M.S. Computer Science — Vanderbilt University 2013-2015		
	+ 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		
	+ 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		
	+ Collaborator on infrastructure at NuID		
	Pallavi Baral — pabaral@microsoft.com		
	+ Manager and team lead at Microsoft		
Interests	Hiking, Printmaking, Programming Languages, Game Design, Mereology, Music		