NOLAN SMITH

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Summary

Practiced software engineer, enthusiastic learner, and intuitive communicator with 14 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, Clojure, TypeScript, Python, Go, Rust, C#, C, Lua, Erlang, Haskell, OCaml

Experience

Senior Software Engineer — Wolfram Research   2023-Current

+ Inherited and led the rearchitecture and migration of the Wolfram Cloud application to Kubernetes
+ Developed and deployed back-end services in Java, Typescript, and Wolfram Language related to kernel management, expression evaluation, server-side rendering, and Mathematica notebook state management
+ Addressed synchronization bugs and failure modes in legacy Java code

Founder, Principal Software Engineer — NuID [nuid.io]   2017-2022

+ Designed and implemented an elastic, highly available authentication API and web-based developer portal using Clojure, 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

+ Implemented and maintained pipelines in Spark and Hadoop-like architectures driving dashboards and analyses relied upon by 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 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

+ Thesis: Design Patterns in Concurrent and Asynchronous Systems
+ Project: Distributed Online Record Linkage with MinHash and Storm
+ GPA: 4.0/4.0

B.S. Computer Science — Vanderbilt University   2011-2015

+ Completed B.S. and M.S. in 4 years
+ Fine art minor focusing in drawing and printmaking
+ GPA: Cumulative 3.777/4.0 - Major 3.854/4.0

References

J.D. Hollis — jd@theconsultingcto.com

+ Collaborator on infrastructure at NuID

Pallavi Baral — pallavibaral@gmail.com

+ Manager at Microsoft

Interests

Hiking, Printmaking, Programming Languages, Game Design, Mereology, Music