

Shon Feder

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EXPERIENCE

Software Engineer

CareDox, New York, NY

March 2019 – August 2019

- Collaborated on redesign of electronic health records platform using CQRS/ES architecture based on the Commanded framework; I advocated for, and secured, careful application of domain-driven design (DDD) principles
- Designed, implemented extensions to REST & GraphQL APIs for Elixir microservices running on MySQL & PostgreSQL
- Improved engineering effectiveness by advocating for Git best practices, functional design principles, and systems design

Software Engineer, Tools and Infrastructure

Digital Asset, New York, NY

November 2018 – March 2019

- Migrated snowflake Jenkins instance to infrastructure as code (IaC), using Terraform, NixOS, and JcasC
- Implemented purely functional deployment and delivery in a globally distributed, polyglot development environment using NixOS, Hydra, Docker, and Terraform on GCP
- Set up CI/CD for the Canton project, leveraging Scala Build Tool, Docker, and CircleCI

DevOps Engineer → Robotics Automation Software Engineer

KeyMe, New York, NY

June 2016 – November 2018

- Designed and implemented interfaces for LED and GPIO firmware in C for an Atmega AVR MCU
- Designed and implemented robotics calibration framework in Python to standardize reporting and improve reliability
- Introduced static analysis and type-safe development methodologies into codebase and CI pipeline via gradual typing of existing Python code with mypy
- Prototyped ports of core processes to Rust, OCaml, and Haskell, helping secure Haskell's introduction into production
- Designed and developed extensible Python framework, automating issue responses & reducing ticket load by 50%
- Designed and implemented CLI tools enabling safer, noninvasive maintenance of nodes & doubling operator efficiency
- Improved the speed (~20%), reliability, & flexibility of deployment to thousands of nodes via git automations
- Worked closely with Dev, Ops, Customer Service, and Technical Support to improve efficiency, advance automation, extend tooling, and foster a culture of collaboration and communication

Technical Support | Bookseller at *Strand Book Store*, New York, NY

May 2015 – June 2016

WordPress & SharePoint Admin | Research Consultant at *Lynx Collaborative Care*, Denver, CO

May 2012 – May 2015

SKILLS

Programming Languages: OCaml, Prolog, Python, Rust, Haskell, C, Bash, SQL, Elixir, JavaScript, Scheme

Software & Tooling: Git, SaltStack, Rundeck, Postgres | GCP, AWS | Emacs, Vim | Docker, Terraform, Nix | Jenkins, CircleCI

Methodologies: functional, relational, object oriented, and constraint programming, actor model | type-driven development

EDUCATION

Recurse Center, Brooklyn, NY

September 2019 – Present

Implemented [Alg_structs](#), an OCaml library for algebraic structures with functionality akin to Haskell's typeclasses

Implemented [These](#), an OCaml library for inclusive disjunctions

Studied typed lambda-calculi, implementing calculi on the left plane of the lambda-cube in my [Themis project](#)

Studied the experimental language 1ML, extending the prelude and adding several data structures in [my fork](#)

University of Colorado Boulder, Boulder, CO

2010 – 2012

Towards an MA in German Language and Literature

Awarded the Max Kade Fellowship for “exceptional applicants” (2010)

University of Colorado Boulder, Boulder, CO

2002 – 2007

BA in Philosophy, GPA 3.60

PROJECTS

[tokenize](#): A simple tokenization library for (SWI-)Prolog

Open Source Contributions: dune (designed and implemented *init* subcommand), atd, vyconf, Eliom

Coding Made Easy at IS 62 K (Ditmas), Team Leader for *New York Cares* volunteer project

Mar – May 2016