

THOMAS BIDNE

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tbidne.github.io

tbidne

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ABOUT

- Software engineer with over 10 years of professional experience.
- Active opensource contributor, particularly in the Haskell and Nix communities.
- Extensive experience working both in a team and as a solo developer.

EDUCATION

B.Sc. in Computer Science

University of Maryland, College Park

2009 - 2013

- Minor: Astronomy
- College Park Scholars Graduate

PROGRAMMING LANGUAGES

Haskell Java C# JavaScript
TypeScript PureScript Nix Python
C++ Ruby

WEB FRAMEWORKS

Angular Node React

DATABASES

PostgreSQL Oracle SQLite

DEVOPS

Nix Docker OpenShift

CI/CD

Github Actions Jenkins Gitlab

GENERAL SKILLS

Distributed Systems Networking
Full-stack development

EXPERIENCE

Independent Contractor

January 2023 - Present



- Improved outstanding issues in poorly understood Haskell voice analytics software:
 - Added LLM integration with OpenAI, for running natural language queries on audio transcripts.
 - Added documentation, extensive test suites, and Github CI/CD.
 - Refactored code to remove difficult dependencies.
 - Designed, implemented, and demo-ed new features.
 - Fixed long-standing bugs.

Senior Software Engineer

Platonic.Systems

November 2020 - January 2023



- Implemented "smart-contracts" with a high emphasis on correctness in Haskell, Nix, and PureScript.
- Designed and implemented a website for data visualisation and machine learning in Python.
- Improved a client's software's robustness by re-implementing fragile JavaScript APIs in Haskell.
- Worked on a high-performance full-stack Haskell web application for supply-chain analysis.

Senior DevSecOps Engineer

BridgePhase

March 2016 - November 2020



USCIS, Washington D.C.

- Full-stack web development for the Electronic Immigration System (ELIS) application, used by United States Citizenship and Immigration (USCIS) officers for handling applicant case flows.
- Used Java+Spring, Angular, React, Javascript, Typescript, Oracle/Postgres, Docker, OpenShift, and CI/CD via Jenkins.
- Maintained a Red Hat Enterprise Linux virtual machine for testing.
- Participated in multiple "tiger teams" for developing cross-team solutions to shared problems.
- Managed daily production deployments on a semi-regular basis.

Software Engineer

GBL Systems

May 2013 - February 2016



NAS Pax River, Patuxent MD

- Worked on the C++ real-time distributed simulation Next Generation Threat System (NGTS) for the United States Navy.
- Worked on network protocols and integrating NGTS with third-party software. This included designing/implementing APIs and travelling to customer sites to provide support.
- Designed GUIs using Qt C++ framework.