

# THOMAS BIDNE

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🌐 tbidne.github.io

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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 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 visualization 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 traveling to customer sites to provide support.
- Designed GUIs using Qt C++ framework.