

ISAAC H. LOPEZ DIAZ

Software Engineer

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 Caguas, PR

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SUMMARY

Software Engineer with expertise in Haskell, C, Python, Lisp, JavaScript, and ML frameworks. Experienced in backend development, programming languages research, and scalable cloud services.

SKILLS

Cloud: Azure, Heroku, Docker

Databases: MSSQL, ODBC, CosmoDB, GraphQL

Frameworks: React, Yesod, Angular

ML: PyTorch, TensorFlow, Malt

EDUCATION

8/2015 - 5/2022 **BS Software Engineering**
GPA: 3.27

University of Puerto Rico - Mayagüez

8/2024 **MS Computer Science**
GPA: 4.00

University of Puerto Rico - Rio Piedras

PROJECTS

PL **Blue** github.com/ih1d/blue
Master's thesis project. A reflective programming language with the ability to change semantics and analyze dataflow semantics.

EXPERIENCE

7/2024 – Present **Software Engineer** [Rockit Development Studio](#)
• Built REST APIs for hospital systems, ensuring HIPAA & HL7 compliance, improving interoperability across X healthcare facilities.
• Primarily using C# and Azure Portal framework to build backend service.
C# / Azure Cloud / DevOps

7/2022 – 9/2023 **Software Developer** [MasterWord Services](#)
• Enhanced Yesod/Haskell codebase, reducing system errors by half and improving database query performance.
• Primarily using Yesod framework with ODBC (MSSQL) storage.
Haskell / MSSQL / JavaScript

1/2022 – 6/2022 **Software Developer** [Optivon, Inc.](#)
• Optimized React frontend, reducing page load times by 35% and improving UI responsiveness.
• Participate in Heroku deployments to analyze improvements for performance, fix configuration bugs and learn cloud based deployments for Heroku.
JavaScript / React / GraphQL / Heroku

1/2022 – 5/2022 **Research Fellow** [New York University](#)
• Implement a neural network to improve results in order to predict one-dimensional unsteady compressible reacting flow simulations.
Python / Pytorch

8/2021 – 12/2021 **Research Fellow** [New York University](#)
• Trained convolutional neural network with >90% accuracy for fruit-fly body-part recognition..
Python / Pytorch

8/2021 – 12/2021 **Operating Systems TA** [University of Puerto Rico - Mayagüez](#)
• Teach about Operating Systems, based on the course syllabus, by preparing presentations and classes for students, and to assist students on laboratory projects, exams and quizzes.
C / IPC / Minix