


ISAAC H. LOPEZ DIAZ

Software Engineer

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

7/2024 - Present	Software Engineer • 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	Rockit Development Studio
7/2022 - 9/2023	Software Developer • 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	MasterWord Services
1/2022 - 6/2022	Software Developer • 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	Optivon, Inc.
1/2022 - 5/2022	Research Fellow • Implement a neural network to improve results in order to predict one-dimensional unsteady compressible reacting flow simulations. Python / Pytorch	New York University
8/2021 - 12/2021	Research Fellow • Trained convolutional neural network with >90% accuracy for fruit-fly body-part recognition.. Python / Pytorch	New York University
8/2021 - 12/2021	Operating Systems TA • 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	University of Puerto Rico - Mayagüez