Chicago, IL U.S. Citizen

Johan A. Ortega-Rios

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Education

University of Illinois

Urbana-Champaign, Illinois

Aug 2019 - May 2023

• B.S. in Computer Engineering

Languages and Technologies

- Languages: C, C++, JavaScript, Typescript, Python, Rust, Ruby, Java, SQL, Scala, Bash
- Frameworks and Libraries: Rails, Spring, React, Node, Express, Redux, Expo
- Tools: Buildkite, Node, Postgres, GraphQL, Protobuf, Next.js

Employment

Software Engineer II - IRS

Remote - ATI Govt. Solutions

Mar 2025 – Oct 2025

- Led initial design and development of core date calculations and methodology for in-development application
- Worked with designers to develop UI designs in React and Typescript for in-development application
- Actively identified and developed extensions to an open-source DSL by the IRS based in Scala

Software Engineer

Remote - US Digital Corps

Aug 2024 - Feb 2025

- Implemented tax policy through a Scala-based DSL for IRS Direct File
- Collaborated with design team to develop and refactor application UI and flow in React and Typescript
- Updated Java backend for PDF/XML generation interacting with the IRS e-file API

EAS Engineer

Chicago, IL - Echo Logistics

Feb 2024 - Aug 2024

- Provided application level support for Echo's portfolio of applications
- Used tools such as AWS Cloudview, Splunk, and Datadog to identify past and ongoing application issues
- Debugged Dotnet, ASP Net, and React Native + Angular applications based on user reports

Software Engineer

Chicago, IL - Flexport

June 2023 - Oct 2023

- Collaborated across teams to implement accurate modelling and storage of trucking schedules in Ruby and Postgres
- Digitized 100s of route schedules and created GraphQL + gRPC endpoints for internal access
- Developed an in-house UI library using Typescript for use in React Native development

Software Engineer Intern

Chicago, IL - Flexport

May 2022 - Aug 2022

- Developed and tested cargo label generation using a Rails backend and React frontend. Reducing an average of 40000 UI interactions per week
- Collaborated with team's product manager, business stakeholders, and users to quickly iterate on product design
- Employed software design patterns including domain-driven-design to write testable and extensible code

Technical Experience

Projects

- Gemini Browser
 - Created a Gemini browser in Rust for accessing documents over the Gemini protocol
 - Uses connections over TLS with TOFU authentication
- RISC-V CPU
 - Worked in a team of 3 to implement a pipelined CPU based on the RISC-V 32-bit ISA using System Verilog
 - Features implemented in addition to the base RISC-V ISA are:
 - * 2-Level Caching of Instruction and Data reads
 - * Hardware-based Prefetching (One Block Lookahead)
 - * RISC-V M Extension