# Nicholas Baron

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### Education

University of California, Irvine

**Expected Completion May 2028** 

Doctorate in Computer Science

California State Polytechnic University, Pomona

Completed December 2022

Master's of Science in Computer Science

Thesis: Observer Rules for Box-Split Grammars

California State Polytechnic University, Pomona

Bachelor of Science in Computer Science (GPA: 3.8)

Completed December 2020

## **Conference Papers**

**Baron, N.**, Eger, M. "Observer Rules for Box-Split Grammars" *AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE-23)* Salt Lake City, United States.

## **Work Experience**

#### Compiler Intern, Xilinx/AMD, CA

May—August 2022

- Developed and tested libXAIE to AirBin pipeline
- Contribute AirBin lowering to MLIR-AIE

#### Compiler Intern, Wind River Systems, CA

June—December 2021

- Shipped an updated version of Rust for VxWorks
- Ported an open-source implementation of UbSan for the Diab7 compiler

#### **Software Engineering Intern**, Murcal, Inc., Palmdale, CA

May—August 2019

- Developed and documented a framework that will be used on future embedded systems
- Created and designed multi-threaded features from feedback given by team members
- Worked in a semi-independent development role to iterate on the project

## **Extracurricular Projects**

little-lang Fall 2019

- Used third-party tools to assist in building and generating code for the project
- Researched compiler concepts related to the project, improving the code from said research
- Improved project specification after project had begun, adding comprehensibility
- Documented accepted language with example code and used examples for testing

Prime\_Finder\_2 Spring 2019

- Developed models to better understand parallel processing concepts
- Implemented a safe multithreading model for scalability
- Optimized multithreaded code to improve perceived performance

#### **Technical Skills**

• C++

• Python

• git / GitHub, Bitbucket

• Rust

• Linux

• LATEX

Haskell

Shell Scripting

Assembly

Java

· make, CMake