

JAN-PAUL VINCENT RAMOS-DÁVILA

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EDUCATION

Cornell University

2021 - 2025

Bachelor of Arts in Mathematics & Computer Science, Minor in Philosophy

EXPERIENCE

Software Verification Researcher

May 2022 - Present

Carnegie Mellon University - Institute for Software Research

Research Experience for Undergraduates in Programming Languages.

Advised by Dr. Jonathan Aldrich & Dr. Joshua Sunshine while working on the Gradual Verification project.

GV leverages imprecise specifications for static verification with the integration of dynamic verification.

Programming Languages Researcher

November 2021 - Present

Cornell University - Bowers College of Computing and Information Science

Member of the Computer Architecture & Programming Abstractions research group on tools for the Calyx compiler infrastructure. An infrastructure for building compilers that generate hardware accelerators.

Software Engineering Trainee

July 2021 - August 2021

Google Computer Science Summer Institute

Studied programming fundamentals for web development in JavaScript directly from Google engineers and got an inside look on Google employee tools used for web development.

Developed a peer-to-peer instant messaging architecture and user interface.

PUBLICATIONS & PROJECTS

RNAfoldml: An OCaml package for predicting RNA secondary structure

Inle Bush, **Jan-Paul Ramos**, Songyu Ye

Domain Specific Language for differential equations

ISEF '21

Benjamin Philippe Applegate, **Jan-Paul Ramos**

Pythagorean Triples in Pascal's Triangle: A computational and algebraic approach

ISEF '20

Jan-Paul Ramos

HONORS & AWARDS

PLMW @ PLDI Travel Scholarship

2022

SIGPLAN Conference on Programming Language Design and Implementation

Regeneron International Science and Engineering Fair Finalist

2020/2021

Grand Prize Regional Math Fair, Puerto Rico

RELEVANT COURSEWORK

Graduate Level Advanced Programming Languages

Object Oriented Design and Data Structures

Graduate Level Category Theory for Comp Sci

Discrete Structures

Data Structures and Functional Programming

Computer System Organization

TECHNICAL SKILLS

Languages: OCaml, Coq, Python, Java, JavaScript, Haskell, Scala, Rust, C++, HTML/CSS

Tools: Unix, VSCode, Git, IntelliJ IDEA, Docker, Jekyll, PEGjs