# Jan-Paul Vincent Ramos-Dávila

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## Education

**Cornell University** 2021 - 2025
Bachelor of Arts in Computer Science & Philosophy

## Experience

**Carnegie Mellon University** 05/2022 - Present
Research Intern
Advised by Dr. Jonathan Aldrich & Dr. Joshua Sunshine on Gradual Verification, a state of the art verifier that leverages partial specifications for scalability in specification-driven verification. Fixed optimization bugs and implemented a Property Based Testing tool for evaluating the soundness of Gradual $C_0$.[3][8]

**Cornell University** 10/2021 - Present
Undergraduate Research Assistant
Advised by Dr. Adrian Sampson in the Calyx Compiler Infrastructure for Accelerator Generators. Implemented the Graphicionado graph analytics algorithm in Calyx. Worked on a symbolic execution tool to compile Calyx parallelism to a Racket DSL equivalent.[2][4][5]

**Google** 07/2021 - 08/2021
Computer Science Summer Institute
Learned programming fundamentals in JavaScript directly from Google engineers and got an inside look at Google employee tools used for web development. Developed a peer-to-peer instant messaging system with the Express.js framework and Heroku hosting.[7]

## Publications

POPL '23 (SRC) **Evaluating Soundness of a Gradual Verifier with Property Based Testing**
Jan-Paul Ramos-Dávila

## Coursework Projects

**RNAfoldml** *CS 3110 Functional Programming*
An OCaml package that enables users to input both RNA sequences in FASTA format and a set of constraints to predict RNA secondary structure.[1]

## Honors

**Travel Scholarship**, ACM SIGPLAN Conference PLDI 2022
**Finalist, Mathematics**, Regeneron International Science and Engineering Fair 2020 & 2021

## Technical Skills

**Languages**: OCaml[1], Python[2], Scala[3], Rust[4], Racket[5], Java[6], JavaScript[7], C[8], English, Spanish, Italian
**Tools**: Unix, VSCode, Git, IntelliJ IDEA, Docker, PEGjs, Neovim