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 - 01/2023
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

Winner, Third Place, ACM SIGPLAN Symposium POPL Student Research Competition	2023
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, Español, Italiano
Tools: Unix, VSCode, Git, IntelliJ IDEA, Docker, PEGjs, Neovim