James Albert P. Labayna
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Education

Stevens Institute of Technology
Bachelor of Science in Computer Science, 2019-2022
Minor in Mathematics, 2019-2022
GPA: 3.862

Coursework:
Compiler Design & Implementation **(OCaml)**, Programming Languages Theory **(OCaml)**, Systems Administration **(Python, Shell, C)**, Systems Programming **(C)**, Concurrent Programming **(Erlang)**, Operating Systems **(C)**, Systems Security **(x86, Python, C/C++)**, Computer Vision **(Python)**, Database Management Systems **(SQL)**, Algorithms **(C++)**, Computer Organization & Programming **(ARMv8)**, Discrete Structures **(Racket)**, Intermediate Statistics **(R)**, Automata & Computation, Project Management, Modern Algebra

Work Experience:

Course Assistant, Stevens Institute of Technology 08/2021 - 05/2022

- Designed a testing solution for a simple language. This involved:
  - Modifying parsers, lexers, interpreters, and an abstract memory implementation to allow for convenient debug output and test case generation.
  - Using shell and python scripts to automate adding language functionality (for test cases) into student code and test via an existing OCaml framework.
- Wrote and modified Python, OCaml, and shell scripts to automate grading
- Held weekly office hours to provide academic and technical support
- Provided Windows, Mac, and Linux support for students

Temp Customer Service Associate, Walgreens 09/2020 - 11/2020

Recreational Assistant, Stevens Institute of Technology 11/2019 - 04/2020

Projects

Minor Programming Projects

- AWS EBS CLI backup utility 04/2022
- RANSAC-based edge-detection 10/2021
- Various compilers 02/2021 - 05/2021
  - x86 subset to binary; llvm subset to x86; c-like languages to llvm; Turing-machine-based language
- Tree Method in Racket 06/2020
  - Recursively generate a tree to find a contradiction for an arbitrary logical statement
- Team-based web application 09/2019 - 12/2019
  - Virtual storefront deployed on github pages

Tracking & Management System | *Google Apps Script (Javascript), Google Suite* 06/2018 - 06/2019

- Digitized paper management process through spreadsheet scripting and G Suite

Research 09/2016 - 06/2019

- 3 years of research and development in a small team to develop dye-sensitized solar cells

Skills

Languages:
OCaml, C/C++, Bash, Python, Java, R, HTML/CSS/JS, LaTeX, Racket

Software
Git, GitHub, Vim, VirtualBox, RStudio

Operating Systems:
Linux (Arch, Debian/Ubuntu), Windows