

# Juan Carlos Martinez Jr.

Greater Chicagoland Area | +1 (708) 980-4815 | inquiries@jcmart.dev | github.com/jc-mart | martinez.cs.luc.edu

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## EDUCATION

### ► Loyola University Chicago | Chicago, IL

- Master of Science in Computer Science, Computer Systems Concentration / August 2023 – Present
  - GPA: **3.7/4.0**
- Bachelor of Science in Computer Science / August 2019 – June 2023
  - GPA: **3.6/4.0**
  - Awards: 2023 Student Employee of the Year Award Recipient; 2023 Arrupe Person for Others Award Nominee

## COMPUTER SKILLS

Languages: C, CSS, HTML, Java, JavaScript, Python, YAML, Verilog, SQL, Kotlin

Operating Systems: Windows, macOS, Linux, Android

Software: Adobe Photoshop, Adobe Premiere, Adobe After Effects, Ansible, Apache Hadoop, Apache Spark, Command Line, GCC, Git, Microsoft Office, VIM, nmap, SSH, VMWare, Bash Scripting, pre-commit, Modelsim, qemu, gdb, make, VS, MongoDB, React, Node.js, Pytest, Android Studio

## PUBLISHED PAPERS

1. Diversity Similarity Join for Big Data. In Similarity Search and Applications: 16th International Conference, SISAP 2023, A Coruña, Spain, October 9–11, 2023, Proceedings. Springer-Verlag, Berlin, Heidelberg, 238–252. [https://doi.org/10.1007/978-3-031-46994-7\\_20](https://doi.org/10.1007/978-3-031-46994-7_20)

## PROJECTS

- Developed a CPU using Verilog and simulated in Modelsim that successfully executes RISC-V 32-bit instructions; synthesized into an FPGA to observe output.
- Developed an MMU, FAT filesystem driver, page frame allocator, Terminal driver, and a keyboard driver in C to create an operating system from the ground up

## EMPLOYMENT

### ► Loyola University Chicago Department of Computer Science | Chicago, IL

*Computer Systems Researcher* / August 2023 – Present

- Developed a testbed for Zero Interaction Pairing Authentication (ZIPA) scheme validation and created custom-built system with sensor array to mimic common household IoT devices
- Developing a vehicle to pedestrian (V2P) system that verifies a legitimate users location using ad-hoc networks and computer vision
- Mentoring undergraduate students participating in the Software and Systems Laboratory

### ► Church of God New Hope | Chicago, IL

*Lead Technical Support* / January 2020 – Present

- Acting system/network/security administrator, taking charge of troubleshooting problems, network organization, and device setup on property
- Mentoring interested congregation members to gain problem solving skills and learn new technologies

### Loyola University Chicago Department of Computer Science | Chicago, IL

*Data Science Research Assistant* / August 2022 – June 2023

- Researched scalable algorithm that reports distinguishable results from large datasets simulated with Apache Spark and Hadoop
- Wrote research paper regarding the scalable algorithm which was later accepted into the ACM SISAP 2023 Conference

### Loyola University Chicago Information Technology Services | Chicago, IL

*Digital Media Consultant* / January 2022 – August 2023

- Promoted from Digital Media Advisor
- Oversaw the Equipment & Video and Print & Design departments
- Trained new hires in their respective department

## OTHER SKILLS

- Bilingual in English and Spanish; fluent in speaking, reading, and writing

## **Juan Carlos Martinez Jr.**

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### **EMPLOYMENT SUPPLEMENTAL**

#### **The Home Depot | Alsip, IL**

*Sales Associate, Paint & Garden / March 2019 – August 2021*

- Drove sales using expertise in specified departments by fulfilling customers' demands and needs to their satisfaction
- Handled paint department inventory and worked alongside a great team to drive the most sales in the Midwest region in Q3 2020