David J. Jarufe Siman

Computer Engineer

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Career Summary

Experienced graduate with an ever-growing passion towards the advancements in technology. Skills include designing and debugging software algorithms and circuit topologies. Proven ability to communicate and work with cross–functional teams. Seeking an internship or co-op opportunity where I can aid in achieving project goals by utilizing my technical teamwork and critical thinking skills.

Hard Skills

Programming Languages

- C / C++
- Typescript
- Bash
- Assembly
- Python
- HTML & CSS
- SystemVerilog
- MATLAB

Related Coursework

- Introduction to Computer Security
- Computer Communication Networks
- Software for Embedded Systems
- Python for Data Science
- Computer Design and Prototyping
- Microprocessor Systems and Interfacing
- Introduction to Digital System Design
- Data Structures
- Signals and Systems
- Advanced C Programming

Technical Expertise

- Digital Multimeter & Oscilloscope devices
- Spanish Language (22 years)
- English Language (19 years)

Personal Links

- in www.linkedin.com/in/davidjarufe/
- ⌂ www.github.com/djarufes/

Education

Purdue University, West Lafayette, IN

2017 – 2021	Bachelor of Science in Computer Engineering	(3.48/4.0 GPA)
	Minor in Management	
2021 – 2023	Master of Science in Computer Engineering	(4.0/4.0 GPA)
	Interest in computer communications and networks	

Work & Research Experience

Jan. 2019 – May 2021

Computer Vision in Forest Inventory and Analysis ViP – *Former team leader*
FNR Computer Programmer, Summer 2020, Dec. 2020 – May 2021

- Created an algorithm to process stereo video footage from cameras equipped with motion sensors to acquire and analyze individual tree data as well as construct 3D virtual maps.
- Designed a low-cost, accurate system to obtain rich, individual tree information below the canopy.
- Developed a long-term monitoring system for plantations.

Jan. 2018 – Dec. 2020

University Residence Support Center (URSC)
Student Associate & Statistics and Data Coordinator

- Employed to administer one of the two URSC installations on campus.
- Formulated weekly statistical graphs to collect data on the number of students attending the resource center.

Design Projects

May. 2021

PChat – A reliable, free-to-use college group chat application

- Senior design project aimed to create a web application containing public group chats for classes, clubs, and other organizations, to facilitate easier interactions among like-minded peers and be a place for discussion.

Apr. 2021

Packet Filtering Firewalls & Spam Filter

- Designed a firewall for my Linux machine using the iptables packet filtering modules.
- Programmed spam filter recipes using regex instructions to trap messages depending on its email's content.

Mar. 2021

SYN Flood Attack – Python implementation

- Gained a deeper grasp of TCP vulnerabilities and denial-of-service (DoS) attacks by creating a script to carry out SYN flood attacks.

Feb. 2021

Advanced Encryption Standard (AES) – Python implementation

- Developed a script to execute the encryption and decryption sides of the AES algorithm utilizing a 256-bit key size.

Apr. 2020

New York City Bike Traffic Data Analysis

- Took the role of a data scientist with a second student by examining data sets regarding bike usage in NYC through the utilization of ridge regression models and probability maps.

Leadership, Awards & Involvement

Key Leadership Position

2020 – 2021	CAM^2 Research Team Leader and Co-Leader
2018 – 2020	Cary Club Senator and Operations Director

Honors

May. 2021	Dean's List & Semesters Honors