Tafita Rakotozandry

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Education

Lafayette College Expected in May 2022

Bachelor of Science: Electrical and Computer Engineering

Relevant Courses: Digital Circuits, Analysis and Design of Solid-State Circuits, Signal and Systems, Embedded Systems, Data Structures and Algorithms

Skills

- Circuit analysis and design
- Serial protocols (SPI, I2C, UART, CAN)
- Programming Languages: Java, C, Python, MATLAB
- Microcontrollers and FPGA
- Design and simulation Software: KiCad, SPICE, LabView, SketchUp, AutoCAD
- Language Fluency: English, French, Malagasy, and German (intermediate)

Experiences

Electric Car Circuit Designer Intern Jun 2020 to Aug 2020

Vitesco Technologies, Toulouse France

Designed an embedded circuit board in collaboration with the company's engineering team that controls the motor of an electric car for a German car manufacturer
Developed a test software to test the different circuit prototypes made using the CAN protocol

Digital Humanities Summer Scholar May 2019 to Jul 2019

Lafayette College, Easton, PA

Collaborated with the research librarians at Lafayette College on combining humanities research with the use of digital tools
Developed a new software prototype based on processing programming language that proposes a user-friendly digital tool software for humanities researchers

Remote Monitoring Software Developer Intern Feb 2018 to May 2018

Laboratory for Analysis and Architecture of Systems, Toulouse

Analyzed the communication protocol used by the different Uninterruptible Power Supplies (UPS) of the laboratory
Developed a web application to monitor and control these UPS remotely using Python, PHP, HTML and CSS

Relevant Projects

Coffee Shop Simulation Software Nov 2019 to Dec 2019

- Developed an event driven simulation software-based on Java which simulates and provides the most profitable coffee shop business model
- Conducted an analysis of the different cases of the coffee shop model used

Heart Rate Monitor Feb 2019 to May 2019

- Designed a low-level architecture of the system based on different logic gates
- Implemented the overall data processing of the heart rate monitor using FPGA

Maze Robot Mar 2019 to Mar 2019

- Participated on design of autonomous robot that escapes a maze for the Region 2 IEEE competitions
- Analyzed and proposed the different sensors needed to make the robot