

Alexander Faché

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US citizen, Belgian citizen

OBJECTIVE

Pursuing an internship position within Electrical Engineering and Computer Science to further enhance my application of circuit design, embedded systems, and programming by challenging myself with new technical skills and project management.

EDUCATION

Georgia Institute of Technology, Atlanta, GA
BS Electrical Engineering
Minors in Computing and Intelligence; Robotics
Major GPA - 4.0/4.0, Overall GPA - 3.86/4.0

Los Altos High School, Los Altos, CA
GPA - 3.98/4.0 (unweighted), 4.38/4.0 (weighted)

PROFESSIONAL EXPERIENCE

Matrix Industries Internship

Summer 2017, Menlo Park, CA

- Developed a Bluetooth enabled Arduino data parsing and logging program to display sensor readings in Matlab.
- Designed a proof of concept demo to display the capabilities of the company's thermoelectric generator (TEG).
- Used the Cypress Solar IoT Kit to create a low power demo powered by a TEG to send on-board sensor data by BLE.

Sigsense Technologies Internship

Summer 2015, San Francisco, CA

- Used a BLE protocol to design and develop a C++ program that sends and receives sensor data from utilities.
- Implemented into a sensor network system deployed at McDonald's used for instant utility state recognition.
- Learned how an early stage startup functions and the challenges that must be overcome.

Georgia Tech Lorraine, France

Attending Spring 2018

- Develop a global perspective and broaden cultural experience.

PROJECTS

Vertically Integrated Projects - Aqua Bots

Fall 2017, Georgia Tech

- Apply computer vision to more accurately detect objects of interest.
- Create a point cloud network using a stereoscopic camera for 3D visualization of the topography of ice shelves for more methodical analysis and drilling techniques.

HyTech Racing

Fall 2017, Georgia Tech

- Build an all-electric car.
- Integrate telemetry functionality from data received by Xbee microcontroller on car to manage the state while operating.

Vertically Integrated Projects - Living Dynamical Systems

Spring 2017, Georgia Tech

- Conducted directed research to learn how cockroaches and engineered systems move about complex terrains.
- Devised neuromechanical systems through experimental engineering, controls, and sensing.
- Setup an experimental track to record high speed footage of cockroaches' gaits while traversing an incline.

LEADERSHIP POSITIONS

Peer Tutor

Spring 2014–Spring 2016, Los Altos High School

- Math, Science, AP Computer Science, homework and test planning.

Java Programming Club - Vice President and Co-Founder

Fall 2014–Spring 2015, Los Altos High School

SKILLS

Programming: Java, Matlab, C++, Python, Arduino, Android Studio, Git, Machine Learning

Hardware: Autodesk Inventor, Autodesk Eagle, 3D printing, soldering, oscilloscope, breadboarding