Aliaksei Laurynovich

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Seeking an entry level position as an Embedded Systems Engineer.

Current MSc Internet of Things Student with major in Electrical and Electronics Engineering, 2:1. Experience of two summer internships in the University of Edinburgh as a Software Engineer. Possesses analytical and technical skills necessary for design, implementation, and debugging electronics and computer applications. Solid understanding of electrical engineering theory, analogue and digital circuits, networking, computer operation and fuzzy logic.

Summary of Qualifications

- Two summer internships as a Software Engineer
- BEng Thesis on development of a smart sensing device on a RaspberryPi
- Excellent ability troubleshooting and solving programming and computer software issues
- Excellent understanding of a product development lifecycle
- Strong ability to program in Assembly, C, C++, Python, MatLab, Bash, and Verilog
- Proficient in Git, Bitbucket
- Solid understanding of MIPS computer architecture
- Able to create projects using Arduino, Mbed, Atmel, Pycom, RaspberryPi, FPGA
- Proficient in using IDEs, such as Eclipse, Visual Studio, Xilinx SDK
- Solid understanding of a control theory including the operation of PID controllers
- Strong understanding of fuzzy logic theory
- Able to use multimeters, oscilloscopes, and other various electronics lab equipment
- Experience of working with high voltage power machines
- Proficient in Microsoft Word, Excel, Power Point, LaTeX, Windows XP/7/10, Linux
- Proven ability to collaborate with peers ensuring excellent result, achieved within tight deadlines through academic experience
- Strong oral and written communication skills in English and in Russian
- Fast learner, good work ethics, punctual, team-player, result and detail-oriented

Education

Master of Science of Internet of Things **Oct 2018 – Present**
University of Essex, Colchester, UK

Relevant courses: Programming Embedded Systems, Intelligent Systems and Robotics, IP Networking and Applications, Internet of Things Technology

Bachelor of Electronics and Electrical Engineering, 2:1 **Sep 2015 – May 2018**
The University of Edinburgh, Edinburgh, UK

Relevant courses: Engineering Mathematics 2, Digital System Design 2, 3, 4, Engineering Software 2, 3, Electronics Project Laboratory 2, Mixed Signals Laboratory 3, Controls and Instrumentation 3, Digital Communications 4, Digital Signal Analysis 4, Digital System Laboratory 4

Academic & Personal Project Work

Mobile robot that avoids obstacles **Oct 2018 –Dec 2018**

- Designed and implemented a fuzzy logic controller that navigates a robot to avoid obstacles
- Robot used sonars to detect distance to objects
- Programming was done in C++

Smart sensing device for agriculture, BEng Project, 72% **Oct 2017 – April 2018**

- Designed and developed web-interface and hardware trigger for a sensing device used in plant research
- Implemented RaspberryPi as a web-server
- The programming was done in Python and Bash languages

Remote-controlled car **Feb 2018 – April 2018**

- Designed and developed the microprocessor-based system for remote controlled car on FPGA
- The system used Harvard computer architecture with 128bits of RAM and 16 instructions
- Programmed IR transmitter driver for the system
- The programming was done in Verilog and Assembly languages

IoT sound detector **February 2017**

- Designed and developed the system that collects audio data and sends it to the IoT server
- Programmed the device in Python to collect data from a microphone and send it via LoRaWAN
- Organized the team of 5 people to focus on separate tasks according to their skills

Repetition counter for a Smart Gym **January 2017**

- Developed a system to count the number of exercise repetitions for gym equipment
- Programmed Mbed microcontroller to collect the data from the proximity sensor
- Presented my work in the Cisco Switch Up Challenge Final

Traffic light application **November 2016**

- Developed an application to simulate a traffic light operation on the Basys 3 FPGA board
- Used timer interrupts to track the timing for each traffic signal
- Programmed the application in C language
- Connected a VGA interface to display the simulation by programming FPGA hardware in Verilog

Work experience

Summer Software Engineering Intern The University of Edinburgh **May 2018 – Aug 2018**
Designed and developed a Graphical User Interface for plant-phenotyping platform. The programming was done in Python by applying the object-oriented approach.

Summer Software Engineering Intern The University of Edinburgh **May 2017 – July 2017**
Designed and built a distributed system for communication between multiple RaspberryPi computers via SSH port. The programming was done in Bash. This system is now being used by the team of Dr. Sotirios Tsaftaris, the project supervisor, and his Ethiopian collaborators.

References available on the request