

Ashwin Krishnan^{1B} Electrical Engineering

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SUMMARY

- Field of Interest: Integrated Circuit Design, Artificial Intelligence and Android Development.
- Strong programming skills with the ability to adapt to different languages and systems.
- Vision to innovate and advance technology for the right causes to better society.
- Excellent communication skills: ability to articulate information in a clear, organized manner.
- Ability to work confidently around different levels of management at an organization.
- Creative individual capable of coming up with unique solutions.

SKILLS

- Development Boards: Arduino Uno R3 (ATmega328), Altera DE2 board (Cyclone II FPGA).
- High-Level Languages: C#, Java, XML, jQuery, HTML, CSS.
- Low - Level Languages: VHDL, Arduino (C/C++).
- Scripting Languages: VBA, Python, Familiar with Ruby.
- Query Languages: SQLite for Android, SQL.
- Source Code Control: Git, TFVC, SVN
- Network Administration: TCP/IP, VPN, VMware vSphere Client.
- IDE: Visual Studio, Android Studio, Eclipse, Altera Quartus II Design Suit Software, Arduino IDE.

WORK EXPERIENCE

Project Management Framework Developer
JSI Telecom, Kanata, Ontario, Canada

January – April 2015

- Worked with an Agile scrum team to make Team Foundation Server the central point of Application Lifecycle Management ALM and Git the standardized Source Code Control System.
- Developed important developer tools that allowed the custom control of workflow management in JSI. These tools were made compatible with the new features of TFS 2013. (ASP.NET)
- Developed a series of report automation applications and a centralized application to monitor all of them. (Windows Form Applications, TFS API, SQL)
- Managed/Modified old automation scripts used in the Project Management office. (VBA, Ruby)

Systems/Network Administrator
Matcor-Matsu Group, Mississauga, Ontario, Canada

January – April 2014

- Responsible for complete IT and network infrastructure at Mississauga plant.
- Worked with IT team to virtualize servers and monitor them using VMware vSphere Client.
- Collaborated with Engineers to troubleshoot complex system-level issues occurring with the software-controlled robot arms, used to design automotive parts.
- Implemented access points/routers around plant to increase networking range for machines.
- Maintained Active Directory, updated security policies, documentation on intranet.

TECHNICAL PROJECTS

Altera DE2 Board, FPGA - PLD Design

- Designed Combinational and Sequential Circuits to learn fundamentals of VHDL using Altera Quartus II Design Software. (ECE 124 LAB)
- Programmed the FPGA to check that the hardware implementation functions correctly.
- The projects involved developing car control system, elevator control system and traffic light control system.

OrderNow, Android Application

- Working on an android application to allow users to order online at major food chains. The app requires users to sign up to a backend SQLite database system that I created.
- The app will allow users to view order-traffic at different food chains signed up to this service. An algorithm will calculate wait time and alert user.
- Users can order online indicating pick up time: 5, 10 or 30 minutes.

Arduino, Sensor Data Analyser

- Developed sketches that allow the Arduino microcontroller to feed sensor data via Serial/Ethernet/Bluetooth protocols to a PC for processing by a C# application.
- Thermistor send room temperature to the PC. User can receive emails 3 times a day with a detailed account of temperature statistics in his/her room.
- The C# application in turn, can send data to the microcontroller to trigger certain behaviour.

Resume Review Automation and Script Manager (JSI Telecom)

- Developed a Script Manager application in C# that downloads all scripts to correct path locations on local PC, using a web-client.
- Users have the capability to add new scripts to the existing database and view detailed info (last run time, wiki-content), of each script.
- Developed a resume review algorithm that allows users to rate a list of resumes with user-defined criteria. Each resume is assigned a point value and categorized into appropriate folders.

EDUCATION AND RELEVANT COURSES

Candidate for Bachelor of Applied Sciences in Electrical Engineering - University of Waterloo, Waterloo, ON (2019).

- Relevant Courses: Linear Circuits, Digital Systems, Embedded Systems, Fundamentals of Programming, Physics of Electrical Engineering, Discrete Mathematics, Boolean Algebra.

ACTIVITIES AND INTERESTS

- Enjoys playing and watching many sports. Participated in advanced intramural soccer tournaments during school terms.
- Captained high school soccer and basketball teams.
- Passionate about travelling and exploring new places. Enjoys the outdoors and safaris.