Amente Bekele

📱 +1 613 400 8418   •   ✉ amente@live.com   •   🌐 amente.github.io

Work Experience

IBM   **3 years**
Staff Software Developer   *May 2015–Present*

I recently worked on IBM Cognos Analytics, on the content store, search and provisioning features. Prior to that I was heavily involved from the initial prototype of IBM Watson Analytics for Social Media, to delivering a scalable cloud software to production. I mainly focused on designing and implementing REST API's for data collection and visualization micro-services using Node.js and Java. I contributed to the social data analytics pipeline back end implemented in Apache Spark, Apache Kafka and Zookeeper frameworks. I was also involved in implementing automated deployment and continuous integration process using Jenkins, Docker and Chef.

IBM   **16 months**
Extreme Blue Technical Intern and Software Developer Co-op   *May 2013–Aug 2014*

I worked in a team to develop a prototype for Social Media Analytics application on IBM's PAAS platform BlueMix. I used Node.js, Java and Cloudant DBAAS technologies. I collaborated with a client to identify their requirements and delivered a proof of concept. I prepared and delivered a pitch to senior executives and CEO of IBM on the business value and proposition. I also worked on advanced log analysis tool for IBM Cognos L3 support team using Eclipse RCP. I implemented an inference engine feature that runs sequential database queries against a library of known issues to help users get smart recommendations for common problems. In addition I improved Eclipse RCP applications build work flow by developing an Eclipse Plugin for an in house build automation tool written in Python.

Carleton University - SYSC4906(Embedded Micro-controller Systems)   **4 months**
Teaching Assistant   *September 2015–December 2015*

I tutored and mentored twenty students in this highly project driven special topics course about ARM-Cortex M micro-controllers.

Carleton University - Department of Electronics   **6 months**
Lab Assistant   *July 2015–January 2016*

I re-designed labs for a senior year micro-controllers course by porting over lab materials from Intel 8051 to ARM Cortex M4.

Carleton University - Bioinformatics Lab   **2 months**
Research Assistant   *May 2012–July 2012*

I worked on a web application for searching a protein-protein interaction prediction database using PHP and MySQL. I also developed a command line tool in Python to parse text files and store the data in the database.

Grype Solutions   **6 months**
Software Developer   *July 2012–January 2013*

I worked on a web based Point of Sale Terminal software written in C# and ASP.NET. I developed the shopping cart UI and implemented interface for a receipt printer and bar-code scanner.

Education

Academic Qualifications

Carleton University   **Ottawa**
MASc Electrical and Computer Engineering, Data Science Specialization,   *2016–September 2018 (Expected)*
My research is focused on the application of data analysis, digital signal processing and machine learning for patient monitoring in Neonatal Intensive Care Unit (NICU) using data from pressure sensitive mats.

Carleton University   **Ottawa**
B.Eng. Computer Systems Engineering , Graduated May 2016, CGPA: 10.85/12 (A)   *2011–2016*

Addis Ababa University   **Ethiopia**
BSc Electrical and Computer Engineering, Achieved 2nd Year Level. GPA 3.6/4   *2009–2011*

Notable Projects

- **Engineering Project:** *'AlertBuddy: Wearable Emergency Alerting Device for the Hearing Impaired'*

  I designed and implemented emergency alarm audio detection algorithm using Digital Signal Processing (DSP) and Artificial Neural Networks (ANN). I worked in a team to develop a compact wearable wrist device hardware and mobile application

- **3rd year Project:** *'Controlling a Humanoid Robot using Kinect V2'*

  I worked in a team to develop a firmware for controlling humanoid robot using C and the Cortex Micro-controller Software Interface Standard (CMSIS). I developed a user software in C#, using Microsoft .NET Framework 4.5 and WPF to interface with the Kinect V2 hardware.

- **Side project:** *'International Annual CanSat Competition 2014'*

  I led a team of ten engineering students which designed a can sized satellite system to take part in the international annual CanSat Competition. My team ranked 8th out of 36 teams worldwide. I worked on system firmware for a Freescale HC08 micro-controller using C to interface sensors. I also designed and implemented a ZigBee wireless mesh network using XBee radios

Technical skills

- **Programming Languages:** Over 5000 lines: **Java, JavaScript, C#** Over 1000 lines: **Python, C** Familiar: **Scala, C++**

- **Distributed Systems Frameworks and Tools:** Experience in: **Apache Zookeeper**, **Apache Kafka**, **Docker**, **Chef**

- **Data Analytics and Machine Learning: Apache Spark**, **MATLAB**, **Scipy**, **Tensorflow**

- **Hardware:** ARM Cortex M micro-controllers, Zigbee Networks, Bluetooth, Wifi, Hardware Protocols and Interfaces: I2C, SPI, USB

Extra-curricular activity

- **IEEE Carleton University Student Branch**   **4 years**
  Webmaster, Computer Society Chair, Vice Chair and Chair   *Jan 2012–May 2015*

  During my undergraduate studies, I was involved in the student branch starting as a volunteer and later on serving in multiple leadership roles. I developed a website that won 1st place in the 2012 IEEE Student Branch Global Web Site Contest. I also organized IEEE Code Jam junior student programming contest and IEEE Eastern Ontario Oral Papers competition. I also participated in planning and coordinating various workshops, networking events and outreach activities. In recognition of my involvement, I was awarded the IEEE Computer Society Richard Merwin scholarship and IEEE Canadian Foundation scholarship.

- **Carleton University Robotics Club**   **3 years**
  Workshop Coordinator, Project Lead   *Jan 2012–May 2014*

  I organized and presented introductory robotics and micro-controller programming workshops using Arduino IDE and C/C++ to students from 12 high schools in Ottawa. I helped the department of Systems and Computer Engineering in outreach activities by demonstrating robotics projects.

Interests

- Amateur Radio, Advanced License VA3AXB
- Google CodeJam(2012,2013), Facebook Hacker Cup(2013,2014), IEEE Extreme Programming(2012,2014) - I am not a competitive programmer, but I enjoy participating in programming competitions.