Yekta Demirci | Software Engineer

- Software Engineer enthusiast who is always passiniate to learn more
- Have various experience with both hardware and software

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EDUCATION

M.A.Sc Software Eng. ECE
UNIVERSITY OF WATERLOO - Canada
09/2019-02/2022
Supervised by Prof. Mahesh Tripunitara & Prof. Catherine Rosenberg
cGPA 93%

B.Sc Electrical and Electronics Eng.
METU - Turkey
2014-2019
Honour Student, in the top 10%

Exchange Student
KAIST- Korea 2016

Exchange Student
NTU-Singapore 2016

SKILLS

EXPERIENCED
C/C++11, Python
MySQL, mongoDB, CUDA, Dockers
HTML, CSS, JS/Node, Git, CI/CD

COMPETENT
ROS, Verilog, VHDL, NI Labview, KeyCreator CAD, LTSpice

SERVICE & LEADERSHIP

Volunteer Tutor 01-06/21
Family & Children Service Waterloo

Leader Scout 2014-2016
METU scout team

AWARDS & HONOURS

Graduate Research Studentship
UoWaterloo 2019-2021

Int. Master's Award of Excellence
UoWaterloo 2019-2021

474th, in the top 0.035%
Turkish National Uni. Entrance Exam 2014

ABOUT ME

Backpacker (Visited +25 Countries)
Experienced Line Cook
Amateur Sax Player

EXPERIENCE

U.Waterloo | WATERLOO | Graduate Researcher 09/19 - 02/22

➢ Implemented a two-level slice scheduler on OAI and FlexRAN platforms
- Implemented a two-level Weighted Round Robin fashioned slice scheduler on top of a **third-party**, **open-source** RAN project with a **large codebase** in **C/C++**
- Enhanced the existing API to enable changing the state of the slices on- the-fly
- Prepared guides to setup a private LTE network in emulation and COTS hardware
- Implemented a Poisson traffic generator and **UDP clients/servers** in **Python**

ASELSAN | ANKARA | Software Engineer 06/19 - 09/19

➢ Successfully implemented the followings on JETSON TX2 device:
- **Real time edge detecting** with a CLI to enable changing various parameters (Gauss. Blur window size, sigma etc.) on-the-fly using built-in **CUDA** modules in **C++**
- Real time green ball detecting with a CLI using built-in **CUDA** modules in **C++**
- Matrix multiplication and matrix addition in .cu

GEMSEC lab | SEATTLE | ML Research Intern 07/18 - 09/18

➢ Implemented an application that can preprocess various types of peptide data, creates different tensors and predicts new ones. An hour runtime for ~1000 peptides
- Used feature extraction techniques, built-in PCA & **self-written wavelet transforms**
- Analyzed the relation b/w. various properties and metal binding using **sklearn** lib.
- **Scientific Report**: "A Generalized Similarity Metric for Predicting Peptide Binding Affinity" bioRxiv

SOME PROJECTS

➢ Food Hunter Web Application - 2021
- Developed a web app. w/ 5 people using HTML, CSS, JS, mDB, Selenium, **Jenkins**, **agile methods**

➢ Flow level, HTTP-2 Classification with Machine Learning Algorithms - 2020
- A publicly available web traffic collection is analyzed by KNN, SVM, CART, ANN

➢ Performance Analysis of different Vertex Cover Approx. Alg. w. **Multi-Thread** - 2019
- Concurrently run a SAT solver and 2 approximation algorithms for a VC-problem

➢ Relevance between # of Friendships and # of Connected Communities - 2019
- A publicly available social network is investigated via **modified DFS** – betweenness

➢ Design and Implementation of **an Autonomous 2D SLAM Robot** - 2018
- Designed and **built a robot** with a group of 5 people as a bachelor capstone project
- Implemented **noise-filtering**, (novel) **pathfinding** and **object classification algorithms**

➢ Implementation of FFT & Overlap-and-Save Algorithm in myRIO - 2018
- Implemented **FFT, Overlap-Save algorithms** in **C**, run in **real time** on linux based OS

➢ NBA Play-off & Regular Season Relation Analysis with PCA & Artificial Neural Nets
- NBA data is extracted from NBA website to train an A.N.N. Play-off results were predicted

SOME COURSES

Grad: • ECE650: Methods & Tools for Software Eng. • ECE606: Algorithm Design & Analysis • CS656: Computer Networks • ECE657A: Data and Knowledge Modelling & Analysis • ECE651: Foundations of Software Engineering • ECE356: Database Systems
Undergrad: • EE435-436: Analog-Digital Telecom. • EE497: Real Time App. Of Digital Signals • CS466: Image Processing • CS499: Introduction to Machine Learning • EE441: Data Structures