# AHMET K. YILMAZ

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#### **PROFESSIONAL PROFILE**

Strong foundation in undergraduate computer science. Possesses 8 years of experience designing, building, troubleshooting high-quality code in various programming languages. Experience with writing test scripts. Technical skills include C, Java, Kotlin, Unix, Linux, Weka Explorer.

#### **EDUCATION**

#### George Washington University, Washington, DC

May 2020

Bachelor of Science in Computer Science Honors: Magna Cum Laude (GPA: 3.63/4) Technical Track: Artificial Intelligence Senior Design Project: AnyShare

**Courses**: Introduction to C Programming, Algorithms&Data Structures, Software Engineering, Algorithms, Continuous Algorithms, Systems Programming, Computer Architecture I, Discrete Math I & II, Database Systems&Team Projects, Operating Systems, Data Mining, Into to Artificial Intelligence, Software Design for Handheld Devices, Capstone Design Project I & II

#### **TECHNICAL SKILLS**

- Programming languages: C, Java, HTML, JavaScript, R, Android Development with Kotlin
- Databases: SQL Server, MySQL, Visual Studio
- Operating Systems: Windows XP, 7 and 8, UNIX, LINUX, Ubuntu on VirtualBox, XV6
- Data Mining: Weka Explorer
  Version Control: GitHub
- Microsoft Suite
- Arduino, Fritzing, Raspberry Pi

#### **SELECTED PROJECTS**

#### CSCI 4243W Capstone Design Project I and CSCI 4244 Capstone Design Project II

Fall 2019-Spring 2020

- Designed and implemented mobile app portion of AnyShare Project to realize sharing/renting anything.
- Used Android Studio and Kotlin for implementation.
- Used Firebase Authentication for account creation/verification and login activity.
- Stored and updated Rent, Loan, Locker info at Firebase Realtime Database.
- Used Google maps to show the locations of the empty lockers or matching loaned items.
- Generated a OR code to access the chosen locker.

### **CSCI 4511 Artificial Intelligence**

Spring 2020

- Implemented Java code to read a random graph to calculate the shortest path from start to end points using Dijkstra and A\* algorithms and compared their performances.
- Implemented generalized Tic-Tac-Toe for NxN board using minimax algorithm in Java.
- Implemented a program in Java that calculates optimal utility values and policies for a given Grid World using Value Iteration and Policy iteration algorithms and compared their performances.
- Implemented Viterbi algorithm in Java to find the most likely explanation of the customer journey given the observations.

#### **CSCI 4237 Software Design for Handheld Devices**

Fall 2019

- Designed and implemented a mobile app to help GWU students discover locations of a desired set of cuisines near campus.
- The restaurants accepting dining cash as a part of on-campus meal plan differentiated.
- Displayed Yelp reviews of the selected restaurant.

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#### **CSCI 3411 Operating Systems**

Fall 2019

- Modified xv6 operating system to add the following functionalities
  - 1-to-1 threads
  - Synchronization via blocking, spinning, or combination of blocking and spinning
  - Synchronization via mutexes

**CS699 Data Mining** 

Summer 2019

• Using raw public data downloaded from the Centers for Medicare & Medicaid Services website, developed a classifier model with Weka Explorer to assign 1 through 5 start rating to 4573 hospitals.

#### **CSCI 3410 Systems Programming**

**Spring 2019** 

- Built a circuit for Tic-Tac-Toe game using 3 Arduinos, 2 player and a judge, that communicate via I2C bus.
- Built heart rate monitor where Arduino communicates with a host program (C code) running on Ubuntu to send timestamped blood pressure values so that the host can store the values in histograms to detect outliers.

#### **CSCI 2441W Database Systems & Team Projects**

**Spring 2018** 

- Designed and implemented Database Management System for Hotel Management using SQL and Visual Studio.
- Provided easier bookkeeping and query.

#### **WORK EXPERIENCE**

### **Gryphon Networks, Toronto, Canada**

July-August 2019

- Summer Intern: Systems Software Developer
  - Researched on how to:
    - o Utilize crypto support of Trust Zone on ARM platform to improve security of the systems at low cost.
    - o Utilize Open-TEE and Trust Zone API to tie the secure and normal worlds together.
    - Help the company -potentially- save millions of dollars with this way of providing crypto functionality.

#### **SEAS Computing Facility, Washington, DC**

January-May 2017

- Lab Technician:
  - Troubleshooted technical issues encountered by students, faculty, and staff.
  - Improved the overall response rate.

### George Mason University, Ali Vural Ak Center, Fairfax, VA

July-August 2017

- Summer Intern: Web Developer/Maintainer
  - Kept content of the department website up to date by gathering data and feeding it to the web page.
  - Updated the layout of the existing web page for improved user experience.

#### Vector Marketing Corporation, Fairfax, VA

June-August 2016

- Sales Representative/Software Support:
  - Provided software support to improve marketing experience of sales representatives.
  - Helped increase the productivity, which later translated to more sales.

#### Foundation for Political, Economic, and Social Research, Washington, D.C.

June-August 2015

- Summer Intern:
  - Assisted with research, data gathering and analysis of current events for projects.
  - Findings were used to improve foreign policies between Turkey and U.S.

#### **HONORS and AWARDS**

Dean's Honor List at George Washington University

Fall 2016, Spring 2017, Fall 2018, Spring 2019, Fall 2020

Sigma Alpha Pi: The National Society of Leadership and Success (NSLS)

2019-present

Sigma Alpha Lambda: National Leadership and Honors Organization

2017-present

Presidential Academic Scholarship by GWU

2016-present

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#### **VOLUNTEERING**

NBC 4 Health & Fitness EXPO, The GW Transplant Institute, GW Ron & Joy Paul Kidney Center and GW/MOTTEP Jan. 2017

• Blood pressure screening (15 hours).

DCA (a non-profit organization), Lanham, MD

June 2017

• Information desk attendant (40 hours).

ACH Inc. Berkeley Community Center Summer Camp, Arlington, VA

June-August 2015

• Science, Math and Computer Science tutor of 20 underprivileged children (19 hours).

Fairfax Public Library, Fairfax, VA

September-January 2014

• Assistant librarian (12 hours).

Capital Area Food Bank as a Staff/Assistant, Lorton, VA

July 2014

• Processed a thousand applications for food assistance per eligibility criteria as an office assistant (10 hours).

#### **ORGANIZATIONS**

GW Data, GW Tech Collective, ACM Student Chapter at GWU, Robotics Team, GWU Turkish Student Association

<u>LANGUAGES</u> English (Native), French (Advanced), Turkish (Intermediate)

References available on request.