# NABEEL NAIYER

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#### **EDUCATION**

The University of Texas at Austin

**B.S. Electrical Engineering** 

Dec 2018

**B.S. Mathematics** 

#### **WORK EXPERIENCE**

**Visa Inc.** – *Software Engineer;* Austin, TX

Jun 2019 - Present

- Migrated Visa Client Support Application (74M records, 200K attachments) to Microsoft Dynamics with SSIS and KingswaySoft
- Created Selenium Java tests to monitor health of Microsoft Dynamics and Visa Online Portal
- Monitored databases with Dataguise to ensure compliance with security guidelines regarding PI and PAN data

#### Intel Corporation – Pre-Silicon Validation Intern; Austin, TX

Jun 2015 - Nov 2015

- Debugged SystemVerliog tests of RTL code through waveform analysis and a series of back substitutions
- Traced signals back to different hardware components
- Outcome: Fixed bugs involving overheating in hardware components

#### **PROJECTS + RESEARCH**

### Twitter Bot (Ruby, Twitter API)

May 2020 - Jun 2020

- Developed bot that determines the number of tweets posted by a given user per day and tweets visual informatic of that data
- Used cron jobs to schedule bot to run at certain intervals and send emails with pertinent information

### Bargain Bot (Ruby, Selenium, Test-Unit)

Feb 2020 - Mar 2020

- Developed bot that scrapes information from Reddit and Ebay on deals/discounts for specific Nintendo Switch games
- Used cron jobs to schedule bot to run at certain intervals and send emails with pertinent information

### Rational Solutions to Linear Differential Equations (MATLAB)

Aug 2018 - May 2019

- Determine if there exists a class of 1st order linear differential equations such that if a solution exists, then it must be rational
- Develop a process that will accept a differential equation as an input and conclude if there exists a rational solution
- Identify the singularities of the equation and expand via Laurent Series around each singularity point to determine the residue
- Create a piecewise function explaining the behavior of the residues and use it to make a conclusion about existence
- Research lecture given on November 29, 2018 at UT Austin

## Team Formation Algorithm (Python, Javascript, Node.js)

Aug 2017 - Jun 2018

- Worked with team to develop and implement a front-end + back-end UT extension for ECE courses involving teams
- Used literature on team development to design an algorithm which would sort a class into the most efficient groups
- Given n people in an environment, identify k characteristics that can be graded from 1-5, and use those metrics to form valuations
- Shuffle people in teams such that every team has a value v greater than the local minimum team score
- Outcome: usage of program by ECE department since August 2018

## Real to Animated Image Conversion (MATLAB)

Aug 2017 – Dec 2017

- For a given image, runs a K-Means Clustering algorithm on an image to segment pixels then average them
- Finds the inverted Sobel Edge Map of the result and overlays it with the clustered image to produce "cartoonish" appearance

### **TECHNICAL SKILLS**

Languages: Ruby, MATLAB, SQL, JavaScript, C, Java, Assembly

Tools: Selenium, SQL Server, Git, React, Linux, KingswaySoft, SSIS, Dataguise, Microsoft Dynamics CRM

Simulated Systems + Tests and Measurements: Talk-thru, Signal generators, Oscilloscopes, Yagi-Uda and Helix Antennae

## **LEADERSHIP EXPERIENCE AND ACTIVITIES**

Tutoring: Calculus (I-III), Differential Equations, Discrete Math Breakthrough Conference Speaker + Coordinator Multicultural Leadership Institute Panel Coordinator

Sept 2017 – Present

Apr 2016

Feb 2016