Andrew Schmidt

(862) 812-5534 | abschmidt6@gmail.com

EDUCATION

UNIVERSITY OF MICHIGAN
ANN ARBOR

B.S.E. in Computer Science
G.P.A: 3.29 / 4.00
Expected May 2020

SKILLS

C ▪ C++ ▪ Python ▪ Java ▪ SQL ▪ MongoDB ▪ JavaScript ▪ HTML5 ▪ CSS ▪ LaTeX ▪ Git ▪ Bash ▪ Arduino ▪ MatLab

COURSEWORK

Data Structures and Algorithms
Database Management Systems
Web Systems
Introduction to Computer Security
Computer Organization
Foundations of Computer Science
Computing for Computer Scientists
Discrete Mathematics
Linear Algebra
Statistics and Data Analysis

LINKS

Website: andrewschmidt.xyz
Github: /abschmidt6
LinkedIn: /in/abschmidt6

EXPERIENCE

UNIVERSITY OF MICHIGAN | RESEARCH ASSISTANT

Sept. 2017 – June 2018

- Independently programmed image analysis and editing programs to improve photos from cosmological surveys
- Lead image manipulation efforts by filtering images to isolate and enhance the most useful data

UM INTELLIGENT GROUND VEHICLE | MEMBER

Sept. 2017 – Nov. 2018

- Design, build, and program an autonomous vehicle for competitions
- Collaborated in weekly sprint planning meetings and work sessions
- Instructed other team members on C++, Linux, algorithm design, and Robot Operating System

MICHIGAN PHOTOGRAPHY CLUB | BOARD MEMBER

Mar. 2016 – Present

- Manage local events, skill workshops, photo exhibitions, and club meetings
- Handle communications, intra-club organization, and social media

PROJECTS

DATABASE DESIGN

- Build and queried databases using SQL, Java, and MongoDB
- Linear Hashing Index, External Merge Sort, and Grace Hash Join implementations

TRAVELING SALESMAN PROBLEM

- Minimum Spanning Tree implementations using Prim's and Kruskal's Algorithms
- Approximations using a nearest neighbor algorithm and 2-opt
- Optimal solution implementation using a branch and bound algorithm

STOCK MARKET SIMULATION

- Implemented a Hash Table and Priority Queue
- Further experience with Stacks, Queues, Pairing Heaps, templated classes

COMPUTER ARCHITECTURE

- Implemented an assembler, CPU simulator (single-cycle and pipeline), cache simulator
- Translated functions to assembly including integer multiplication and a recursive combination formula