



# Matt Davison


Software Engineer Intern

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Solution-oriented and inquisitive with a background in Mobile Development, Quantum Computing, and Cybersecurity.

## EDUCATION

### B.S. Computer Science Virginia Tech

08/2018 - 05/2022

3.65 GPA, 3.87 in Major GPA

#### Courses

- Data Structures & Algorithms
- iOS Mobile Development
- Computer Systems
- Computer Organization
- Software Design
- Intro to Docker and Kubernetes
- Competitive Programming
- Machine Learning

## WORK EXPERIENCE

### FBU Engineering Intern Facebook

06/2020 - 08/2020

#### Achievements/Tasks

- Built and published fully-featured social media Android app, Standup
- Built a movie browsing app, Twitter clone, and Instagram clone

### Software Developer Intern Lockheed Martin

05/2019 - 08/2019

Center for Innovation - Norfolk, VA

#### Achievements/Tasks

- Developed back-end software to retrain Mozilla's Deepspeech Recurrent Neural Network for transcribing proprietary audio
- Developed audio segmenter to trim long audio clips into smaller segments using word detection that can be transcribed- improved transcription accuracy by 30%
- Aided development of front-end page to upload user-generated audio clips
- Planned and Hosted 40+ intern tour of Center for Innovation

### Quantum Annealing UGRA Virginia Tech Hume Center

09/2018 - Present

Blacksburg, VA

Faculty Advisor: Tom Krauss

#### Achievements/Tasks

- Developed algorithm for Binary Clustering in  $O(n)$  on Quantum Annealers
- Implemented algorithm for determining Graph Isomorphism on a Quantum Annealer using Dwave Ocean SDK in  $O(m^3 \log n)$  qubits
- Investigating Use of Quantum Annealing for Software Validation

## SKILLS

Java

Python

C

Swift

iOS/SwiftUI

Android

Flask

## PROJECTS

### Easy Lectures

- Webapp that allows users to search lectures for the content they want and interact with course TA's when they have questions (Won 1st Place @ VTHacks7)

### Quantum Annealing Embedding Visualizer

- Application that allows users to graphically program qubits and simulate annealing process

### Vibe Check

- Webapp that aggregates content from internet and uses contextual sentiment analysis to rate a user's query

### Ultimate Competitive Ping Pong

- Game developed in Java to teach basics of programming

### GIS Data System

- System for indexing and searching features in GIS Records

### Music Database

- Application for visualizing music preference data among students

## ORGANIZATIONS

Virginia Tech Competitive Programming Team

Virginia Tech Cybersecurity Club

Virginia Tech Linux/Unix Users Group