# Siddartha Devic

# Curriculum vitae

#### **OBJECTIVE**

"To obtain an internship the summer of 2018."

#### **EDUCATION**

2017 - 2021 B.S. Computer Science and

**Mathematics** 

DOUBLE MAJOR, 4.0/4.0

The University of Texas at Dallas

2013 - 2017 International Baccalaureate

Diploma

Westwood High School, Austin,

TX

#### SOFTWARE SKILLS

ADVANCED C++, Java, Linux, QT, QML,

Unity3D, MIPS x86 Assembly

INTERMEDIATE Python, LETEX, TensorFlow, git,

C#, JavaScript, vim

# RESEARCH EXPERIENCE

AUGUST 2017 - PRESENT

Machine Learning

### UTD Student Researcher

Developing a system to approximate neural network margins in high dimensional image-solution space. Previously investigated foundations of residual neural networks. Independent investigation mentored by Dr. Nicholas Ruozzi.

JUNE 2017 - AUGUST 2017

Virtual Reality

## UTD FIVE Lab

Developed a novel method for physical object selection and representation in virtual reality. Prototyped using Unity3D and the HTC VIVE virtual reality headset. Presented work at the Clark summer research conference.

# HONORS AND AWARDS

Intel Innovate FPGA Semi-finalist (Top 20 US) School of Engineering Dean's List (Top 10%) Computing Scholars (CS<sup>2</sup>) Honors Program Collegium V Multidisciplinary Honors Program Clark Summer Research Program Academic Excellence Scholarship (Honors level) 🙇 | 11113 Oak Knoll Drive, Austin TX 78759

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# SELECTED PROJECTS

## 2018 Improving Traffic Safety and Efficiency Through Deep Learning

Working with two NVIDIA employees to create an FPGA accelerated object detection system for traffic lights. Implementing the YOLO neural network architecture for live video feeds to improve recognition of bikes and motorcycles at traffic signals. Qualified for the semi-final round of Intel Innovate FPGA, part of the top 20 teams in the Americas region.

#### 2017 MyUTD (Google Play Store)

An Android application to track public transportation in the form of comet cabs around the UTD campus. Utilizes the QT cross-platform development framework, C++, QML, and JavaScript. Recognized by the application development team at the UTD Office of IT.

#### 2018 deep-margins

Approximating neural network decision boundaries given a binary solution space. This project consists of a neural network classifier in TensorFlow, a margin estimator in Python, and an image generator utilizing OpenCV.

## STUDENT ACTIVITIES

SEPTEMBER 2017 - PRESENT

Work with Codeburners, the UTD competitive programming team, to host coding competitions and computer science camps for high school students. 2 hours each week.

JANUARY 2018 - PRESENT

IEEE Student Society volunteer committee. Organize and attend various outreach programs on campus and at local schools. 3 hours each week.

### RELEVANT COURSEWORK

CS 2336 Computer Science II

CS 3340 Computer Architecture Honors

CS 3305 Discrete Mathematics II Honors