

Siddartha Devic

Curriculum vitae

OBJECTIVE

"Obtain an internship summer 2019 applying my technical experience in machine learning."

EDUCATION

2017-2021 **B.S. Computer Science and Mathematics**
DOUBLE MAJOR, 3.92/4.0
The University of Texas at Dallas,
CS² Honors Program

SOFTWARE SKILLS

ML Tensorflow, Python, opencv
ADVANCED Java, C++, Linux, QT, MIPS
INTERMEDIATE C#, C, vim, git, \LaTeX , Unity3D

RESEARCH EXPERIENCE

MAY 2018 – PRESENT

Machine Learning and Networking, UTD *Advanced Network Research Lab*

Developing a method to create Resilient Deep Distributed Neural Networks (RDDNNs) over a set of computing nodes. Novel use of residual connections and networks of stochastic depth to preserve information in the case of layer failure. To appear.

OCTOBER 2017 – PRESENT

Machine Learning, UTD *Student Researcher*

Convex optimization and neural networks in the field of machine learning. Iterative convex function fitting using gradient heuristics. Work *Improving Generalization in Neural Networks Through Margin Maximization* was presented at the UTD IOT Summit. Investigations mentored by Dr. Nicholas Ruozzi.

JUNE 2017 – AUGUST 2017

Virtual Reality, UTD *FIVE Lab*

Novel method for physical object selection and representation in virtual reality. Prototyped in Unity3D for the HTC VIVE virtual reality headset. Presented at Clark Summer Research Conference.

HONORS AND AWARDS

Intel Innovate FPGA Semi-finalist (Top 20 US)
School of Engineering Dean's List (Top 10%)
Collegium V Multidisciplinary Honors Program
Academic Excellence Scholarship (Honors level)
Clark Research Program (Summer 2017)
Clark Research Program (Mentor, Summer 2018)

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SELECTED PROJECTS

- 2018 **Improving Traffic Safety and Efficiency Through Deep Learning**
Worked with two NVIDIA employees to create an FPGA accelerated bicycle detection system for traffic lights. Qualified for the semi-final round of Intel Innovate FPGA, part of the top 20 teams in the Americas region. darknet (C), opencv
- 2018 **Multiview Camera Dataset Classifier**
Created a fullstack machine learning testbed for training resilient neural networks on the multiview camera dataset. Extensive data pre-processing and image synchronization. opencv, Tensorflow
- 2018 **Food.ar - Hacktech, Caltech**
An iOS application that takes 3D models of food items at restaurants, and displays them in augmented reality to-scale. Swift, ARkit, Flask, Azure, AWS Lambda
- 2017 **MyUTD (Google Play Store)**
Mobile application which provides real time tracking of on campus transportation integrated with openstreetmaps. QT, C++, QML, Javascript

STUDENT ACTIVITIES

APRIL 2018 - PRESENT

Director of Education, ACM UTD - Manage a team of students to provide free tutoring for upper division computer science classes, organize and attend general ACM industry events. 6-8 hour/week.

MARCH 2018 - PRESENT

Empower Through Code - Volunteer for UTD based educational non-profit, providing CS mentorship for girls in lower income areas. 3-4 hour/week.

RELEVANT COURSEWORK

Algorithms and Data Structures,
Computer Architecture, Discrete Math I & II,
Diff. Equations, Probability, Abstract Algebra I,
Linear Algebra, Programming Languages,
Automata Theory, and Numerical Analysis,
Calculus I, II, III