# Adith Balamurugan

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## **EDUCATION**

#### **U.C. BERKELEY**

## M.S. IN ELECTRICAL ENGINEERING & COMPUTER SCIENCE

Signal Processing & Computer Vision Expected May 2019 | Berkeley, CA

## BACHELORS IN COMPUTER SCIENCE BACHELORS IN STATISTICS

Conferred May 2018 | Berkeley, CA Quantedge Award for Academic Excellence, 2016-17 Kraft Award for Freshmen, 2015-16 Dean's List

Cum. GPA: 3.861 / 4.0

## TEXAS ACADEMY OF MATH AND SCIENCE (TAMS)

(UNIVERSITY OF NORTH TEXAS) Grad. May 2015 | Denton, TX Summer Research Scholarship National Merit Finalist President's List Cum. GPA: 4.0 / 4.0

## COURSEWORK

### **UNDERGRADUATE**

Real Analysis
Data Structures
Machine Structures
Discrete Math & Probability Theory

Artificial Intelligence

Efficient Algorithms

Database Management

Machine Learning

Combinatorics & Randomized Algorithms

Operating Systems
Game Theory

Time Series

#### **GRADUATE**

Optimization Models
Deep Reinforcement Learning
Virtual Reality & Immersive Computing

## SKILLS

## **PROGRAMMING**

Frequent Use:
Python • Java • Git • LATEX • Unix • R
Tensorflow • C++
Proficient:

C • C# • SQL/Databases • Node HTML • CSS • JS

### **EXPERIENCE**

## VISA INC. | Data Science Intern | Next-Gen Operation Products

June 2018 - August 2018 | Foster City, CA

- Automated and generalized feature engineering part of ML pipeline with automatic feature selection and model evaluation
- Created and evaluated functions to glean categorical and temporal pattern/insights from "performance monitoring" time series data, collected from 3.3+ billion cardholders and thousands of clients

#### JCPENNEY | DIGITAL ANALYST + BIG DATA INTERN

June 2016 - August 2016 | Plano, TX

- Worked with Big Data Scrum team on Market Basket Analysis for the ".com" channel using analytic tools such as Datameer
- Analysis on Customer Order trends to power more intelligent product suggestions and recommendations

## UNIVERSITY / RESEARCH

## IMAGE AND VIDEO PROCESSING LAB | RESEARCH ASSISTANT

April 2017 - Present | Berkeley, CA

Research with Dr. **Avideh Zakhor** focused in image processing. Collaboration with researchers in UIUC and Cornell. Explore AR applications in mapping indoor spaces

- Developing algorithms to determine height of certain crops from provided images and distance specifications
- Building and improving an RCNN for object recognition in images.
- Processing point clouds into meshes to perform feature extraction

#### **DATA 8** | TEACHING ASSISTANT

August 2017 - May 2018 | Berkeley, CA

Responsibilities include course development, running lab/discussion section, and holding office hours.

#### **STATISTICS 88** | HEAD TEACHING ASSISTANT

August 2016 - December 2016 | Berkeley, CA

Worked with Professor **Alexander D'Amour**. Responsibilities included holding office hours, editing course text, and writing and grading assignments and quizzes.

#### 3D TELE-IMMERSION LAB | RESEARCH ASSISTANT

May 2014 – August 2014 | Richardson, TX (University of Texas, Dallas)
Researched with Dr. Balakrishnan Prabhakaran. Worked with Microsoft Kinect and Visual Studio, using C++ and C# programming with Unity. Explored the areas for improvement in remote medical practice using skeleton and mesh interactions in virtual space.

## **PROJECTS**

### **ALLPAY | Secure Client-side Payment Gateway | Finalist**

Money 20/20 Hackathon | October 2015 | Las Vegas, NV

Payment gateway using Vantiv API which works alongside shopping systems and accepts any mobile wallet.

## SPEEDUP | HAPTIC FEEDBACK FOR APPOINTMENT KEEPING | FINALIST

CalHacks 2.0 | October 2015 | Berkeley, CA

Haptic feedback in shoe if running late to appointment and are travelling by foot. The frequency of feedback is inversely related to tardiness.