# SAVYASACHI JHA

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### Dublin, Ireland

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### Education

University College Dublin Dublin, Ireland

ME, Electronic and Computer Engineering Sep 2018 – May 2020

College of Engineering Global Excellence Scholarship

BSc, Electronic and Electrical Engineering, 3.95 GPA Sep 2015 – May 2018

Bachelor of Engineering Scholarship (for achieving a top 3 GPA among 293 peers)

University of Illinois at Urbana-Champaign Champaign, USA

BSc Student Exchange, Computer Engineering Aug 2017 - May 2018

#### Relevant coursework:

Digital Systems Laboratory, Digital Signal Processing, Digital Communication, Data Structures & Algorithms, Electronic Circuits, Solid State Electronics, Statistical Data Mining, Linear Algebra, Statistics & Probability

### Relevant Work Experience

S3 Semiconductors Dublin, Ireland

Hardware Engineering Intern

Jun 2018 – Aug 2018

- Developed and verified RTL design for pipelined fixed-point FIR filter with configurable number of taps and data bit lengths, in Verilog, using Cadence Incisive tools in a Linux environment
- Wrote MATLAB script to generate tap coefficients based on filtering specs, dump coefficients into filter as customizable Q format signed binary numbers, and read output to display spectrum of filtered output

### **Projects**

#### **UIUC Digital Systems Laboratory**

Champaign, USA

sLC3.2 microprocessor RTL design, verification, and implementation on FPGA

Feb 2018 - Mar 2018

• Implemented and verified RTL design for the simplified Little Computer 3.2 instruction set architecture as a 16-bit microprocessor on the DE2 FPGA, in SystemVerilog, using ModelSim and Quartus in Windows

#### **UIUC Data Structures and Algorithms**

Champaign, USA

Object-oriented program for linked-memory manipulation

Dec 2017 - Dec 2017

• Wrote functions in C++ to manipulate template linked-memory objects and implement mergesort recursively, using Valgrind for testing memory leakage and SVN for version control in a Linux environment

### **UCD Communication Systems**

Dublin, Ireland

Link- and application layer communication protocol

Jan 2016 – May 2016

- Designed and implemented server-side application layer protocol in C for file transfer over TCP/IP
- Implemented link layer protocol with error checking and data encoding in C for file transfer over cable

#### **UCD Statistical Data Mining**

Dublin, Ireland

Logistic regression classifier implementation for identifying ads online

Apr 2016 - May 2016

- Built logistic regression classifier in R to distinguish ads from other online images, using RStudio
- Used K-folds cross validation and confusion matrix to examine accuracy and practicality of model

#### Intel IRIS National Science Fair

Bengaluru, India

Extinguishing fires using sound waves

Oct 2013 - Dec 2013

Presented research poster to top Indian scientists (IITs, ISRO) and received Bronze medal (top 30/2000+)

### **Technical Skills**

Software: C++, C, Python, MATLAB, SVN, Git, Linux, Valgrind, Visual Studio,, R, RStudio, HTML5, CSS3

Hardware: Verilog, SystemVerilog, FPGA, Quartus, Incivisve, Virtuoso, LTSpice, oscilloscope

# Leadership and Volunteering

## UCD College Debating Union (L&H)

Dublin, Ireland

Public Speaking Training Officer

Apr 2016 - May 2017

- Started and ran public speaking training program for UCD's largest student society (6000+)
- Led workshops, hosted experts, and increased turnout by 50% in 4 weeks using social media marketing

### **UCD Student Recruitment**

Dublin, Ireland

Student Ambassador

Sep 2016 - Apr 2017

• Led several campus tours for prospective students and worked in team of 20+ peers to run various events

#### **UCD Design and Materials**

Dublin, Ireland

Project Manager

Jan 2016 – May 2016

Led team of 5 in developing fiberboard beam with highest strength-to-weight ratio among 30 teams

#### National Association for the Blind

New Delhi, India

Teaching Assistant

Apr 2013 – Dec 2014

Built pen which makes tactile drawings to assist hands-on learning for visually impaired students

# Other Work Experience

**Eversheds Sutherland** 

Dublin, Ireland

Litigation and Dispute Resolution Intern

May 2017 – Aug 2017

- Drafted research memos for client queries on injunctive relief, guarantee discharge, and multijurisdictional agency disputes, by analyzing case law using legal databases, which were used to instruct arguing counsel or advise solicitors in the firm's offices across Ireland and UK
- Drafted paper on 3rd party funding of international arbitration, and wrote articles analyzing the enforceability of mediation settlement agreements under the Mediation Act 2017, and the emerging alternative dispute avoidance and resolution options in the Irish construction industry

RailTel Corporation Gurgaon, India

Network Operations Centre Summer Intern

Jul 2016 – Aug 2016

- Reported on telecom technologies like Pulse Code Modulation, TDM/WDM, and optical fiber cables
- Shadowed engineers in SDH equipment R&D lab and optical-fiber Network Operations Centre

Tata Motors Pune, India

Hybrid Electric Vehicle Engineering Summer Intern

Jun 2016 – Jun 2016

 Monitored charge-discharge testing and studied State of Health measurement of lead-acid batteries for application in mild-hybrid electric vehicles

### Interests and Languages

#### **Debating and Negotiation**

- National top 10 speaker at the National Maidens Debate at UCD, 2016
- Quarter-finalist at UCD SLS Negotiation Competition, 2015

#### Music

- Baritone at Illini Awaaz a capella: national top 6 group at Jeena a capella competition at UT Austin, 2017
- Plectrum guitarist: distinction in Grade 2 plectrum guitar examination conducted by Trinity College London

Languages: Bilingual in English and Hindi