

# Srivatsan Ramesh

EE14B058

Indian Institute of Technology Madras

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srivatsan-ramesh in SrivatsanRamesh



## EDUCATION

| PROGRAM                        | INSTITUTION                                    | % / CGPA | COMPLETION |
|--------------------------------|------------------------------------------------|----------|------------|
| B Tech, Electrical Engineering | Indian Institute of Technology Madras          | 8.73/10  | 2018       |
| XII (CBSE)                     | Maharishi Vidya Mandir Senior Secondary School | 97.2%    | 2014       |
| X (CBSE)                       | Vels Vidyashram                                | 10/10    | 2012       |

## SCHOLASTIC ACHIEVEMENTS

- Secured **AIR 429** in JEE-Advanced 2014 (out of **1,50,000+ candidates**); Secured **AIR 98** in JEE-Mains 2014 (out of **13,00,000+ candidates**)
- Awarded **KVPY Scholarship (top 1% out of 10,000 applicants)** and offered provisional admission to IISc with fellowship in 2014
- Top 0.1% (out of 35,000 students)** in the Indian National Astronomy Olympiad 2014 and attended the **OCSC at HBCSE-TIFR, Mumbai**
- Top 1% (out of 35,000 students)** in the National Chemistry Olympiad 2014 and qualified for the **Indian National Chemistry Olympiad 2014**

## RELEVANT COURSEWORK

- Reinforcement learning
- Machine learning
- Data structures and algorithms
- Probability theory
- Combinatorial Optimization
- Computer Organization
- Digital Signal Processing
- Error Control Coding

## SKILLS

- Core** - Python, C, C++, Java
- Web** - HTML, CSS, JS
- Packages** - Scikit-learn, Scipy, TensorFlow, Flask
- Others** - LaTeX, MATLAB, Android app-dev, Git, Photoshop

## RESEARCH

**Learning to Mix n-step returns** Submitted to NIPS 2017 — [arxiv](#) — Jan 2017 - May 2017

- Developed an algorithm to **mix n-step returns** using a neural network; Evaluated the performance of Eligibility traces in Deep RL setup
- Achieved a **4.8x** boost in performance on **22 games** in the Atari domain over A3C - one of the best DRL methods

## Open Source Contributions

[Github](#)

- scikit-learn** - Fixed bugs in CalibratedClassifierCV and OneVsRestClassifier classes of the package.

## PROFESSIONAL EXPERIENCE

**Summer Analyst, Goldman Sachs Group Inc.** May 2017 - Jul 2017

- Designed and implemented adapters to enable backward compatibility between 2 processing engines
- Developed an efficient monitoring system to ensure consistency between the 2 engines

**Python Software Foundation, Google Summer of Code** May 2016 - Aug 2016

- MyHDL is a hardware definition language in Python, which delivers Verilog's functionality with Python's elegant syntax
- Developed open source [HDMI Source/Sink IP core module](#) using MyHDL; Contributed to [RISC-V processor module](#) using MyHDL

**Intern Employee, 1000 Lookz** Dec 2015 - Jan 2016

- Developed an Android application that allows users to **search and check-out garments** from different vendors
- Developed a **JNI wrapper** for Dlib's face-pose estimation module and extended it to a user friendly Android app

**Software Intern, Clozerr Inc** May 2015 - July 2015

- Developed an Android app, enabling users to check-in to stores with ease and receive rewards for each check-in
- Integrated **Google Analytics** for monitoring user responses, triggering intelligent notifications based on **locations and preferences**

## HOBBY PROJECTS

**Incor — Python App** [PyPi](#) — [Github](#)

- Assisted in developing a Python application which manages file-templates for all popular programming languages
- The app watches for file changes and invokes compilation/execution accordingly

**Virtual Makeup — Python App** [Blog](#) — [Github](#)

- Developed a Python application to apply make-up (lipstick, blush and nail polish) virtually to faces
- Incorporated **Color and texture transfer** technique to produce authentic life-like images.

**GraviDot — Android Game** [Google Play Store](#) — [Github](#)

- An arcade game in Android using **AndEngine** in accordance with the rules of Classical Physics; Integrated **AdMob** to display native ads
- A light weight app with more than **2800** organic downloads on Google Play Store and user rating of **4.3**

## EXTRA-CURRICULAR ACTIVITIES

- Ranked 88<sup>th</sup>** out of **900+** participants in **Google Codejam Kickstart 2017 Round C** contest
- Ranked 7<sup>th</sup>** out of **120** participants in the Coding contest **Code Break 2017** organized by Goldman Sachs
- Qualified for **ACM-ICPC regionals (Chennai, Amritapuri)** - ranked **155** out of **2500+** participants
- Runner up**, (out of **20+** teams) **Code the Google Way, Hackathon**, a college level contest