

Chaitanya Tejaswi



Summary

An Electronics & Communication (EC) graduate with a demonstrated exposure in Embedded Systems, Image Processing, and Python-based development; I am currently looking for an opportunity in similar domains. I have worked extensively with - AVR/ARM microcontrollers, implementing source codes in ASM/C; OCR & QR Codes in addition to conventional image processing; Python3 for creating GUIs & shell utilities, web applications (using Flask/Selenium), and machine learning scripts (using SciPy stack). I'm open to all software development roles.

Education

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| June 2014 - Jun 2018 | Birla Vishvakarma Mahavidyalaya, Vallabh Vidyanagar (GTU) <ul style="list-style-type: none">Completed Bachelor of Engineering (B.E.) in Electronics & Communication with a CGPA of 8.35. |
| June 2014 | OSEM High School, Morbi <ul style="list-style-type: none">Completed HSC from CBSE Board with an aggregate of 80.2%. |
| June 2012 | Delhi Public School, Gandhinagar <ul style="list-style-type: none">Completed SSC from CBSE Board with a CGPA of 9.8. |

Experience

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| June, 2020 | Less Typing, More Thinking [INFO] [DEMO] [CODE] A web utility to lookup LaTeX code for extensively used Maths equations. (CERN WebFest, 2020) <ul style="list-style-type: none">Wrote scripts to scrape & parse Tex equations from two datasets (~400 & ~18,000 entries respectively). |
| March, 2018 | ISR3 [INFO] A web utility to extract text from community assets' images. (Smart India Hackathon, 2018) <ul style="list-style-type: none">Led a team of 6; Wrote scripts to extract location from EXIF files, and pre-process & binarize images. Also, created an original dataset for testing. |

Publications & Invited Talks

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| 15 June, 2020 | Unboxing GitHub [SLIDES] [VIDEO] A talk for academics, with focus on basic GitHub features, and how to use them to create effective lecture notes. |
| 21st April, 2020 | Creating eBooks from Webpages using Python [SLIDES] [VIDEO] A talk to get you started with web scraping in Python using minimal external dependencies. We will write a script that scrapes online court judgments and creates Android/Kindle compatible ebooks from them. |
| 2018 | A Novel Approach of Tesseract-OCR Usage for Newspaper Article Images (Chaitanya Tejaswi, Bhargav Goradiya, Ripal Patel; <i>Journal of Computer Technology & Applications</i> . 2018; 9(3): 24–29p.) A novel approach for optical character recognition of newspaper article images (captured as smartphone camera images) is presented, with evaluation based on two sets of images; both captured using the same camera, under varying lighting conditions. |

Projects (Academic)

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| April, 2018 | Pico-Projector based Automation <i>Guide: Bhargav Goradiya, BVM VVNagar</i> <ul style="list-style-type: none">Implemented Classroom Automation (for teachers) using DLPDLCR2000EVM pico-projector module & Raspberry Pi 3B as server. |
| October, 2017 | OCR-based Personal Assistant <i>Guide: Bhargav Goradiya, BVM VVNagar</i> <ul style="list-style-type: none">Implemented a text extractor & text reader module for newspaper article images using Tesseract OCR & OpenCV, implemented in Python. |

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| April, 2017 | QR Code-based information system using QPython3 IDE on Android devices <i>Guide: Kaushal Patel, BVM VVNagar</i> <ul style="list-style-type: none"> Wrote sample codes for automation using QR codes. |
| October, 2016 | GSM Communication with AVRμc <i>Guide: Anish Vahora, BVM VVNagar</i> <ul style="list-style-type: none"> Implemented serial communication between AVRμc (ATmega32) & GSM Module (SIM300). |
| April, 2016 | Filter Implementation using MATLAB <i>Guide: Robinson Paul, BVM VVNagar</i> <ul style="list-style-type: none"> Implemented lowpass and bandpass filters in MATLAB as an application of Sampling Theorem. |
| April, 2016 | Keypad & ADC/DAC Interfacing with 8085μp <i>Guide: Bhargav Goradiya, BVM VVNagar</i> <ul style="list-style-type: none"> Interfaced 4x4 keypad & ADC/DAC (0800/0808) with Intel 8085μp using 8255 PPI. |
| October, 2015 | Mod-100 Counter <i>Guide: Anish Vahora, BVM VVNagar</i> <ul style="list-style-type: none"> Implemented a Mod-100 Counter using IC-7490 (Decade Counter) & IC-74248 (BCD to 7-segment Decoder) that loops through 00-99. |

Projects (Personal)

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| June, 2020 - | API <i>Personal collection of static APIs.</i> <ul style="list-style-type: none"> Automated chores using JSON files. |
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Skills

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| Languages (Programming) | PowerShell, Python, C/C++, ASM (AVR, x86), HTML/CSS/JS. |
| Languages (Spoken) | English, Hindi, Gujarati. |
| Software Stack | Python (SciPy stack, OpenCV, Flask, Selenium). |

References

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| Dr. Bhargav Goradiya | Head of Dept., Electronics & Communication Dept. (BVM Engineering College, VVNagar) |
| Prof. Anish Vahora | Asst. Professor, Electronics & Communication Dept. (BVM Engineering College, VVNagar) |