Ashish D'Souza

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EDUCATION

Georgia Institute of Technology, Atlanta, GA — Aug '19 - May '23
Candidate for Bachelor of Science in Computer Science

Polytech High School, Dover, DE — Aug '15 - June '19
Master of Technology Diploma in Engineering

SKILLS

Programming Languages: Python, Java, Ruby, R, Bash, SQL, HTML/CSS, JavaScript, PHP, and Arduino
Software: TensorFlow, Flask, Selenium, Java Swing, Android Studio, Git, AWS, Google Cloud, Azure
Operating Systems: Linux (Kali, Debian, Ubuntu, Fedora, Arch, Raspbian), Windows, OS X
Coursework: Object Oriented Programming, Data Structures and Algorithms, Discrete Math

EXPERIENCE

Optical Science Center for Applied Research, Dover, DE — June '17 - June '19
Research Intern, Software Engineering under NASA research grant
- Developed an autonomous aerial greenhouse gas data collection module with Arduino
- Allocated and analyzed satellite data with TensorFlow ML framework and Selenium

PROJECTS

MileSnap, PDI Winning project at HackGT 6 (devpost.com/software/hackgt6-g74o8p) — Oct '19
- App that extracts exact fuel data from gas station signs using image recognition
- Created a post-processing spatial algorithm to extract fuel data with high accuracy
- Developed the back-end API that leveraged AWS, Azure, and Google Cloud Services

Deep Learning for Tropospheric Ozone Prediction (github.com/computer-geek64/MTD) Oct '18 - Dec '18
- Master of Technology Diploma (MTD) senior capstone project
- Used TensorFlow framework to construct a deep neural network for ozone prediction
- Leveraged government air quality database with Socrata Open Data API and SQL
- Developed a front-end GUI with Java Swing

Accessible Audio Keyboard (github.com/computer-geek64/accessible-audio-keyboard) Oct '18 - Apr '19
- Predictive audio keyboard for people with vision and movement disabilities
- Implements dual binary inputs, requiring minimal movement
- Leverages predictive word completion for high efficiency, using TTS for final output

PowerShell Reverse Shell (github.com/computer-geek64/ducky) Jul '18 - Jul '19
- Custom-built TCP reverse shell payload and handler for Windows using PowerShell and Python
- Currently completely undetected by antiviruses and unblocked by firewalls

AWARDS

- SkillsUSA Computer Programming - *National Gold Medalist* (2018), *4x State Gold Medalist* (2015-19)
- SkillsUSA Related Technical Math - *2x State Gold Medalist* (2016-18)
- Regional Multi-state Science Fair - *First Place* (2018), *Third Place* (2017)
- National Merit Scholarship - *Commended Student* (2018)
- BioGENEius Challenge State Competition - *Second Place* (2018)
- President's Volunteer Service Award (2017)
- CyberPatriot State Competition - *First Place* (2017)