**AKASH GAJENDRA KUMAR**

College Station, Texas | +1(469) 586-8982 | [akashgajendra2000@gmail.com](mailto:akash.gajendra@tamu.edu)

**EDUCATION**

**Texas A&M University**, College Station, Texas GPA: 4.0

*Bachelor of Science in Computer Engineering* May 2022

**The Indian High School**,Dubai, U.A.E. Grade: 92.6%

*Physics, Chemistry, Mathematics, Computer Science*  May 2018

**EXPERIENCE**

**Undergraduate Researcher, AggieNova Templates** September 2019 – Present

* Research existing data on the brightness of exploding stars in the ultraviolet and optical light ranges
* Design a data analysis program using Python scripts and numerous data science packages
* Create a model that estimates the total energy of a supernova and predicts amount of light observed from future exploding stars
* Implementation utilizes the following modules: *pandas, matplotlib, numpy etc.*

**Grand Challenge Scholar, Texas A&M University** October 2019 – Present

* Conduct extensive research pertaining to one of the Grand Challenges set forth by the National Academy of Engineering over the next three years
* Develop an in-depth understanding of technical areas in context of research related to the economic feasibility of solar energy
* Expand interdisciplinary, entrepreneurial, global and service-learning expertise over the course of the Grand Challenge Scholars Program

**IEEE-TAMU**, College Station May 2019 – Present

*Outreach Officer*

* Organize numerous volunteering and social events for the 200+ IEEE-TAMU members
* Serve as a liaison between IEEE-TAMU and the Student Engineers Council (SEC) to conduct campus events
* Collaborate with other student organizations to facilitate joint events such as a micro-controller workshop with the NSBE-TAMU chapter
* Supervise 5+ activities committee members to conduct branch events while conducting weekly meetings to ensure successful operation
* Coordinate with other branches of the organization to ensure effective functioning

**Green Hope Organization**, Dubai April 2015 – March 2018

*Volunteer*

* Provided expansion strategies to boost organization’s outreach in the local market, resulted in 10% increase in member enrollment
* Directed organization of Green Hope’s first Eco Conference in Dubai
* Collaborated with cross-functional teams to organize multiple events to increase awareness about sustainability

**PROJECTS**

**Don’t Panic, Hack TX’19** November 2019

* Created a web application that delivers an email and mobile text notification with GPS location to emergency contacts upon panic button activation
* Applied necessary HTTP python modules and Google Maps API framework to effectively retrieve GPS location of the individual
* Established an automatic text message and email delivery system through existing SMTP and Twilio infrastructure
* Programmed text-to-speech conversion to yield an audio message attachment to be sent via email using the gTTS module
* Developed a GUI using the pyQt5 toolkit for the application user interaction such as emergency contact entry, panic button option

**Rocket Position Estimation System** October 2019 – Present

* Design an extensive algorithm that models projectile motion based on user defined parameters
* Develop a mechanism to predict spacecraft reaching escape velocity utilizing fundamentals of rocket science
* Implement GUI using Kivy, Python for visual representation of model to enhance user experience
* Program an inbuilt system which using existing Google Maps framework showcases location of crash in event of one

**Sustainability Demonstration Project** September 2019 – Present

* Construct a working prototype displaying energy inefficiency using principles of power conservation
* Build an energy generator with a crank based system for LEDs and incandescent bulbs
* Demonstrate stark contrast between devices over energy consumption via installation of an energy meter
* Collaborate with other like-minded individuals through ESW (Engineers for a Sustainable World) to spread energy conservation awareness throughout the campus via the project demonstration

**Email Encryptor** August 2019

* Developed a robust email encryption and decryption mechanism using Python
* Devised an additional layer of security for email login information using environment variables
* Implementation utilizes the following modules*: smtplib, os, PIL etc*.

**RELEVANT COURSES AND SKILLS**

***Relevant Courses:***Intro to C++**,** Intro to Python, Discrete Structures in Computing, Single Variable Calculus, Multivariable Calculus, Calculus Based Physics in Mechanics, Calculus Based Physics in E&M

***Technical***: Python, Ruby, C++, Git, SQL, MS Office

***Eligibility***: Eligible to work in the U.S. for internships and for full-time employment for up to 36 months without sponsorship