PRANAY SHAH

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Education

- **Lebanon Trail High School** *Frisco, Texas*
  High School Diploma, STEM Endorsement *Aug. 2017 – May 2021*
  - **Rank: 5/468, GPA: 3.98/4.0** | *Selected Coursework:* Honors & AP Computer Science (Java), AP Calculus BC, AP Statistics
  - *Activities & Societies* - Eagle Scout, Technology Student Association (President, 70 students), Computer Science Research Association (President, 20 students), DECA (Vice President, 175 students), Competitive Programming, Tennis

Experience

- **University of Texas at Austin, Department of Computer Science** *Plano, TX*
  Research Assistant | Machine Learning *Jun. 2020 – Present*
  - Generated 10,000 workspaces and configuration spaces for robotic arms with many joints to feed into neural network
  - Developed convolutional neural network in Python to increase the effectivity of autonomous robotic arms by 100%
  - Collaborated with UT Austin Postdoctoral Researcher Dr. Xuesu Xiao and 2 UT Austin undergraduate students

- **Invstr LTD** *Plano, TX*
  Software Engineering Intern | iOS Application Development *Jun. 2020 – Aug. 2020*
  - Aided professional developers by providing suggestions for over 50 new features and resolving 30 UI/UX issues
  - Developed fully functioning web scraper application for iOS 13 devices based on RSS feed using Objective-C
  - Optimized application by utilizing cache memory to prevent scrolling lag and improve user experience
  - Documented all code professionally using Doxygen services in Xcode and produced concise HTML output

- **National Aeronautics and Space Administration (NASA)** *Plano, TX*
  High School Aerospace Scholar | Mars Research Group *Nov. 2019 – Mar. 2020*
  - Developed satellite models using computer-aided design software and explored various NASA aerospace technologies
  - Conducted research about reaching, discovering, living, and working on Mars for future expeditions in virtual camp
  - Selected as top 20 student from 1148 scholars and invited to Johnson Space Center in Houston for on-site program

Projects

- **Python Voice Assistant** *Dec. 2020 – Jan. 2021*
  - Constructed real-time virtual assistant utilizing Python's speech recognition and text-to-speech (Pyttsx3) libraries
  - Performed HTTP requests on Open Weather Map API and converted data to JSON format to receive updates on weather
  - Programmed automated responses for user convenience in daily tasks; implemented in 3 student organizations in 2021

- **Real-Time Bitcoin Notification System** *Oct. 2020 – Dec. 2020*
  - Developed Telegram bot that sends emergency alerts as well as regular price notifications on an interval in Python
  - Performed HTTP requests on Coinbase API and converted data to JSON format to retrieve updated Bitcoin prices
  - Created 3 IFTTT applets to provide Telegram, SMS, and iOS notifications; automatically plotted data to Google Sheets

- **Constellations Visualization** *Sep. 2020 – Oct. 2020*
  - Proportionally mapped 3500 stars in Java utilizing Std. Draw by parsing 3500-line text file containing x, y, z coordinates
  - Simultaneously displayed 8 constellations on canvas given 8 text input files containing lists of two-way star connections
  - Utilized object-oriented programming to effectively design star class and display visualization in less than 5 seconds

- **Scholastician.org** *Jun. 2020 – Aug. 2020*
  - Developed front-end of website using HTML, CSS, & JavaScript and implemented search engine optimization
  - Optimized web pages for mobile and desktop users to provide best browsing experience to students and tutors
  - Implemented Search Engine Optimization and SSL security certificate to increase ranking on popular search engines
  - Received Congressional Commendation by House of Representatives Congressman Van Taylor for community impact

Skills

- **Languages/Technologies:** Java, Python, Objective-C, JavaScript, ML/DL (TensorFlow, Keras), Mobile Dev (iOS), Git/GitHub