PRANAV CHANDUPATLA

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EDUCATION

The University of Texas at Austin	B.S., Computer Science	May 2023
	B.B.A., Finance	May 2023

GPA: 4.0

PERSONAL PROJECTS

BB84 Quantum Key Distribution (QKD) Protocol   Spring 2019
• Collaborated with a partner to construct a **Java** application to simulate a BB84 QKD encryption protocol
• Brainstormed new additions to the basic encryption protocol that boosted the secure key bit rate by 20%
• Established a protocol that remained uncracked by quantum computing classmates

Word Unscramble   Fall 2017
• Created an interactive game that would have the player attempt to guess all possible anagrams of a word
• Implemented a map-based algorithm in **Java** to find three- to six-letter anagrams from a six-letter string
• Used by high school English as a Second Language teachers to boost students' word recognition and spelling skills

Personal Website   Summer 2020
• Built a website to showcase personal projects and act as an online resume
• Designed and wireframed webpages using Adobe Photoshop
• Coded the site from scratch using **HTML5**, **CSS3**, and **JavaScript**

EXPERIENCE

The University of Texas at Austin – *Data Structures Teaching Assistant* | Austin, TX   August 2020 – Present
• Present weekly PowerPoint lessons on specific data structures to a group of 20 students
• Craft supplementary practice problems in Word and distribute them through Canvas
• Lead office hours to help students debug their code and understand course material
• Evaluate student coding assignments and exams

Applied Research Laboratories – *Research Fellow* | Austin, TX   June 2020 – August 2020
• Collaborated with a team of two fellows on quantum optics research projects
• Investigated single-photon, multi-qubit systems using VQOL, a virtual quantum optics simulator built in **Python**
• Analyzed and manipulated research datasets using Excel and custom Mathematica programs
• Co-authored a research paper written on photon particle-wave duality

CAMPUS INVOLVEMENT AND LEADERSHIP

University Brazilian Jiu Jitsu Club – *Secretary and Authorized Representative*   Fall 2019 – Present
• Organize all paperwork for club travel, room reservations, photographers, and medical trainers
• Schedule and manage 50-person recruitment events and fundraisers
• Author minutes at monthly meetings with RecSports officials

UT Association for Computing Machinery – *Active Member*   Fall 2019 – Present

TECHNICAL SKILLS

• **Coding Languages:** Fluent in Java | Proficient in C, x86 | Experience with Python, HTML5, CSS3, JavaScript
• **Tools:** Linux OS, Github, GDB, Qiskit

ADDITIONAL INFORMATION

Relevant Coursework: Operating Systems, Data Structures, Computer Architecture, Quantum Computing, Linear Algebra
Interests: Mixed Martial Arts, Tennis, Cardistry, Billiards, Thai Food
Work Eligibility: U.S. Citizen – Eligible to work in the U.S. with no restrictions