ASMAT KAUR TAUNQUE

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EDUCATION

California Institute of Technology, Pasadena, CA
Bachelor of Science in Computer Science, Class of 2025
GPA: 3.7

PROFESSIONAL EXPERIENCE

Software Engineering Intern
Dimensional Fund Advisors, Austin, TX | June 2024 - August 2024

- Enhanced the department's knowledge base by integrating a new section to highlight and promote team services.
- Improved user experience with a streamlined and user-friendly interface, increasing visibility and accessibility of departmental offerings.
- Collaborated with stakeholders to ensure services were accurately represented and easily accessible.
- Added advanced features like enhanced search, bookmarks, animations, and transitions for a seamless user experience.
Tech Stack: Visual Studio Code, GitHub, Angular, FastAPI, TypeScript, Python, HTML5, CSS

Game Developer
Caltech, Pasadena, CA | May 2023 - June 2023

- Developed multiple classic arcade games (Pac-Man, Space Invaders, Breakout, etc.) featuring a custom physics engine and key handling in C.
- Designed and implemented game mechanics, including gravity effects, animations, sound effects, and music integration.
- Created custom data structures and tools to support efficient game development and testing.
Tech Stack: C Programming

Student Researcher
University of Utah, Salt Lake City, UT | June 2022 - August 2022

- Conducted research to optimize the chlorination of cerium oxide for recycling nuclear waste as fuel, contributing to sustainability efforts in nuclear reactors.
- Analyzed research data to draw actionable conclusions for improving reactor efficiency.

RELEVANT COURSEWORK

- Web Development: Used HTML5, CSS, and JavaScript to develop multiple websites, including an e-commerce platform to sell Squishmallows, aimed at supporting mental health.
- Relational Databases: Utilized SQL to create a goal management app, enabling users to track progress, set reminders, and leverage a social accountability system for motivation.
- Machine Learning: Completed three courses, developed a Shakespeare sonnet simulator, used supervised and unsupervised learning to analyze data models, created CNNs, and trained on the CheXpert dataset to predict ailments in chest X-rays, reducing MSE to 0.8.

SKILLS

Languages: C, Python, Java, JavaScript, HTML5, CSS
Frameworks & Tools: Angular, FastAPI, GitHub, Visual Studio Code, Google Colaboratory, JupyterLab, IntelliJ
Core Competencies: Code Testing, Debugging, Problem Solving, Code Readability, Team Collaboration

EXTRACURRICULAR ACTIVITIES

- International Basketball Player – Represented India in international basketball tournaments, Caltech Women's Basketball.
- Vice President, Theatre Club (ExPLiCIT) – Led Caltech's theatre club, organizing productions and events.
- Music Enthusiast – Budding singer and guitarist, performing at campus events.

PUBLICATIONS

- Link to Publication on Springer: https://link.springer.com/article/10.1007/s10967-023-08879-4