Siddhant Dubey

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EDUCATION

Georgia Institute of Technology <div align="right">Atlanta, GA</div>
Bachelor of Science in Computer Science; GPA: 3.82 <div align="right">*Aug. 2021 – May 2024*</div>

EXPERIENCE

Amazon <div align="right">San Francisco</div>
Software Development Engineer Intern, Amazon Music <div align="right">*May 2023 – Aug. 2023*</div>
- Revamped the track sequencing algorithm using Java for new users to boost user engagement and improve customer retention
- Modified the MySoundtrack widget UI to optimize new user experiences
- Improved system efficiency by reducing latency in the process of decorating tracks by artists the user follows by 80% (20 milliseconds)

Self-Employed <div align="right">Remote Work</div>
Software Engineering Content Creator <div align="right">*March 2020 – Present*</div>
- Create programming and productivity content on a weekly basis, establishing a strong online presence
- Grew audience to over 10,000+ YouTube subscribers and 25,000+ TikTok followers
- Generated over 1,000,000 views on YouTube and 25,000,000+ views on TikTok

Red Hat <div align="right">Remote Work</div>
Software Engineering Intern <div align="right">*May 2022 – Aug. 2022*</div>
- Automated internal workflows using Python and Flask, increasing team productivity
- Optimized an internal tool by 30% through Flask boilerplate refactoring
- Enhanced an open-source Git Wrapper Python library by adding tag deletion functionality
- Improved maintainability of internal tools by refactoring unit tests and documentation

UNC Chapel Hill <div align="right">Chapel Hill, NC</div>
Research Intern <div align="right">*June 2020 – Aug. 2020*</div>
- Developed an LSTM Network using PyTorch for movie dialogue classification, achieving 79% accuracy, outperforming previous models
- Utilized Pandas, Matplotlib, and NumPy to convert 3+ GB of data into meaningful visualizations
- Evaluated model performance on 3 external domains for comprehensive assessment

PROJECTS

Sidgrep: YouTube Semantic Search | *Python, ReactJS, NextJS, TypeScript, OpenAI API* <div align="right">January 2023</div>
- Implemented OpenAI embeddings API to index and embed 100+ YouTube videos for efficient content retrieval
- Designed a vector database for fast concept search across all videos using embedding queries
- Developed a user-friendly web interface with ReactJS, NextJS, and TypeScript for seamless interaction with the indexing system
- Empowered users to quickly find relevant content,enhancing their learning experience and engagement

Landslide Risk Modeling (NASA SpaceApps) | *Python, ReactJS, ExpressJS, PostgreSQL* <div align="right">October 2021</div>
- Secured 2nd place in the NASA SpaceApps local contest
- Devised a landslide modeling technique using Python, processing 10+ GB of data
- Created an ExpressJS backend connected to a PostgreSQL database, serving information to a React frontend

Implied Volatility Modeling | *PyTorch, Python, Git* <div align="right">January 2020</div>
- Applied machine learning and deep learning models to predict options contracts' implied volatility
- Presented findings to an audience of 30+ people, including industry professionals
- Led and managed a team of 5 people over a week-long project

TECHNICAL SKILLS AND AWARDS

Languages: Java, Python, C/C++, SQL, JavaScript, HTML/CSS, R, Ruby, Dart, Go, Rust
Frameworks: NextJS, Flask, Django, PyTorch, TensorFlow, Flutter
Developer Tools: Git, Docker, Google Cloud Platform, Firebase, Planetscale
Libraries: pandas, NumPy, Matplotlib, NLTK, spaCy, ReactJS, Prisma
Awards: United States of America Computing Olympiad (USACO) Platinum Division, AIME Qualifier