Drshika Asher

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EDUCATION

University of Illinois Urbana Champaign *May 2024*
Bachelor of Science in Computer Science GPA: 3.5/4.0
Coursework: Algorithms and Models of Computing, Computer Architecture, Data Structures, Discrete Structures, Game Development, Linear Algebra, Numerical Methods, Probability and Statistics for CS, Software Design Studio
Awards: Bank of America Grace Hopper Scholarship Recipient, Clare Boothe Luce Research Scholar, Cargill Global Scholar, AnitaB GHC Scholar, JP Morgan Chase WCS Scholar (x2), Illinois CS Tapia Travel Grant

EXPERIENCE

MongoDB *Jun 2023 – Present*
Software Engineering Intern
- Building an API to create a cursor from command response for the MongoDB Rust Driver (1.3k stars, 45 contributors, 10k downloads per month) **github.com/mongo-rust-driver**
- Updated over 10 tests based on specifications and successfully fixed 3 breaking changes.
- Identified and resolved a critical bug that affected end-users with long-running clusters and high connection churn, improving overall driver performance by ~5%

Uber *Jan 2023 – Apr 2023*
Software Engineering Intern
- Designed and implemented an API for Uber One Memberships with 60k queries per second (QPS)
- Achieved a 36.2% reduction in latency by optimizing the REST API implementation
- Successfully implemented proactive monitoring and debugging strategies, resulting in a significant reduction of 100,000 error logs and making the log messages more readable.

Microsoft *May 2022 – Aug 2022*
Undergraduate Research Intern
- Developed and implemented customized facial animations for Microsoft Mesh Avatars from ~10,000+ audio recordings using speech sentiment analysis algorithms. (Unity/C#, TensorFlow)
- Conducted user interviews to build an audio driven multi-device interaction experience resulting in ~23% increased user engagement with multi-surface device flows. (JS, Azure Speech API)

Department of Computer Science at Illinois *Aug 2021 – Aug 2022*
CS Student Research Scholar (CS STARS)
- Used Natural Language Processing (NLP) like Sparse Additive Generative Models and Latent Dirichlet Allocation to identify trends in Audio Based Social Platforms across 20+ subreddits
- Coauthor on "Harmonizing the Cacophony" (**paper** accepted to ACM CSCW 2021)

Cargill *Jan 2022 – May 2022*
Full Stack Software Engineering Intern
- Collaborated with international clients with a team of 5 engineers and designers to build a rapid-scale product prototype with over 20 components by leveraging React, Figma and GitHub Actions

EnterpriseWorks *May 2021 - Aug 2021*
Frontend Developer Intern
- Improved website health by 63% and updated SEO reflect changes in Google Core Web Vitals
- Redesigned over 20 pages of internal and client facing websites written in HTML, CSS and PHP

PROJECTS

Tanpura App | C++, Cinder, CMake
github.com/drshika/tanpura-app
- Developed a virtual Tanpura (String Instrument) Simulator with 7 keys and AI assisted natural plucking (Cinder/C++)

LCTRS | Flask, Python, Google OAuth
github.com/CS196Illinois/Group6
- Prototyped an NLP tool to summarize lecture transcripts by finetuning the T-5 Small model on 20+ lecture transcripts
- Designed and built a user interface with Flask and Google OAuth for users to store their past summarized transcripts

LEADERSHIP

Association for Computing Machinery *May 2021 - May 2022*
Corporate Chair
- Led a team of 6 members to raise over $10,000 to support student interest groups in ACM
- Collaborated with industry leaders including the CTO of Reddit to give tech talks to 300+ students

SKILLS

Programming Technologies Python, C/C++, Go, Java, SQL, Rust, JavaScript, HTML, CSS, Kotlin, Swift (iOS Development)
Git, Django, Flask, Firebase, Vim, MongoDB, AWS, REST API, REST Framework, UIKit