

Shreyas Khandekar

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EXPERIENCE

Software Engineer

July 2023 – Present

Hewlett Packard Enterprise

San Jose, CA

- Worked to develop Chapel: a modern parallel programming language being developed at HPE
- Designed and implemented parallel sorting algorithms for GPUs.
- Utilized CUDA libraries and frameworks to enhance sorting and scanning capabilities
- Fixed multiple bugs with the Chapel compiler in generating GPU kernels
- Worked on core Module Stabilization efforts for releasing Chapel 2.0
- Engaged in remote development practices, connecting to servers and HPC clusters through SSH.
- Collaborated with a team of 20 software developers online using MS Teams, Slack, and GitHub

CS Buddy Mentor

Jan 2023 – May 2023

Department of Computer Science, University of Arizona

Tucson, AZ

- Mentored 4 freshmen CS students to help them navigate college and the CS major
- Held weekly one on one and group meetings to interact with mentees and encourage them to get involved on campus

Software Intern

May 2022 – Aug 2022

Hewlett Packard Enterprise

Seattle, WA

- Developed GPU support in the Chapel language with 2x better performance than the reference CUDA implementation
- Ported the Scalable Heterogeneous Computing (SHOC) Benchmark Suite to Chapel and reduced verbosity by 3x
- Worked on core Module Stabilization efforts

Software Intern

May 2021 – Aug 2021

Hewlett Packard Enterprise

Remote

- Added interfaces for the Apache Arrow and Parquet Libraries to the Chapel Programming Language
- Pioneered the design of the high-level abstract interface to reduce verbosity by up to 50 times
- Won Best in Class award from my site of about 50 interns for exemplary contributions

Undergraduate Research Assistant

Feb 2020 - Jan 2021

Department of Computer Science, University of Arizona

Tucson, AZ

- Ported Haskell code into C++ to increase efficiency by two times for the CHiLL-I/E and EPWD projects
- Worked with EBNF grammars and JavaCUP to get a performance benchmark against other expert parsing tools
- Collaborated with a team of 10 people from different technological, educational, and cultural backgrounds

EDUCATION

University of Arizona

July 2019 – May 2023

Bachelor of Science in Computer Science

Tucson, AZ

Bachelor Of Science in Business Administration in Management Information Systems, Honors

GPA : 4.0/4.0

Phi Beta Kappa (ΦBK) Honor Society

TECHNICAL SKILLS

Languages (by skill): Python, C/C++, Chapel, Java, Kotlin, JavaScript, TypeScript, Haskell, MIPS, HTML/CSS

Developer Skills: Git, Blockchain Technology Certification, Big(O) analysis, Linux, Data Structures, make

PROJECTS

Jeopardy! Solver | *Kotlin, Java, Maven, Lucene, Git*

Aug 2021 – Dec 2021

- Created a Jeopardy! question-answering computer system to answer questions posed in English like that of IBM's Watson AI
- Used web retrieval methods to scrape and index Wikipedia pages as sources for answers
- Answered 30% of Jeopardy! questions correctly as compared to Watson's 80-90%

Reversi | *Java, JavaFX, Git*

Jan 2021 – May 2021

- Pair programmed JavaFX GUI application to play Reversi: a strategy-based two-player board game
- Created a heuristic-based computer player for Reversi which is very hard to beat

Todo List | *Java, JavaFX, Git*

Jan 2021 – May 2021

- Developed a simple application that can be used to track tasks and deadlines
- Implemented features for task manipulation and categorization
- Developed with a team of 4 peers and used Github and agile principles to manage workflow

Casino Royale | *Kotlin, Gradle, XML, AndroidStudio*

Aug 2020 – Dec 2020

- Developed an Android app to play casino games like craps
- Used an MVCC design model to structure code
- Created dynamic animations and graphic artifacts
- Added a simple yet intuitive user interface with features like Dark mode support