

HARSH DEEP

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EDUCATION

University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Science and Statistics

Courses: *Data Structures, Systems Programming, Cognitive Engineering (grad),*

Statistical Analysis, Statistics and Probability I&II, Methods of Applied Statistics

Aug 2018 - May 2022
Cumulative GPA: 3.68/4.0

EXPERIENCE

Modern Treasury

Software Engineer III

Software Engineer II

July 2022 – Current

- Tripled international SWIFT Wires to over 80 countries while accounting for complex regulatory constraints with more than a dozen new tax and purpose systems
- Created a new LLM based framework to track banking holidays for 30+ zones with LLM sourcing and human review based on sparse government and central bank data
- Sped up the main CI pipeline build from 16 minutes to 4 minutes with improved parallelization and reordering dependency chains

Software Engineer

- Implemented low-cost international payments terminating in the UK (BACS/CHAPS), Europe (SEPA, Nordic countries), Australia (BECS) and Hong Kong (CHATS) which collectively moves millions monthly
- Contributed to \$437k in additional annual revenue through helping land enterprise deals based by improving banking integrations at many of the world's largest banks

University of Illinois at Urbana-Champaign

REU Intern – Human Computer Interaction

Jun 2021 – Aug 2021

- Collaborated in a team of 4 researchers that developed an accessible live broadcast player (React, Redux, DvaJS), creating the first widely accessible Board of Trustees operation across 3 universities.
- Implemented ARIA support on 3 different website features and fixed keyboard accessibility for 28 actions.
- Filed 27 issues related to accessibility and feature improvements, outlining a future roadmap for a team of 10+ developers.

University of Illinois at Urbana-Champaign

Head Course Assistant

Jan 2021 – May 2021

- Co-led a group of 200+ undergraduate and graduate staff teaching CS to 600+ students in Java and Kotlin.
- Awarded the Fisher Outstanding Course Assistants award, given to 5 people across the CS department.

PUBLICATIONS

Validating Trust in Human-Robot Interaction Through Virtual Reality: Comparing Embodied and “Behind-the-Screen” Interactions (2nd Coauthor) **2023**

AHFE (2023) International Conference USA. Emerging Technologies and Future of Work - 10.54941/ahfe1004408

What’s This? A Voice and Touch Multimodal Approach for Ambiguity Resolution in Voice Assistants (4th Coauthor) **2021**

23rd ACM ICMI - International Conference on Multimodal Interaction - 10.1145/3462244.3479902

Measuring Complacency in Humans Interacting with Autonomous Agents in a Multi-Agent System (2nd Coauthor) **2020**

SPIE Artificial Intelligence and Machine Learning for Multi-Domain Operations Applications II - 10.1117/12.2559474

ACTIVITIES

Summer of Side Projects - sosp22.com

Founder and Head

- Created an informal class to help people kickstart 65+ side projects with 162 students from 12 countries.
- Handled the organization, managed the forum, gave individualized project feedback, and managed 10 staff.
- Held 5 different code-along workshops in Python and JavaScript - Chatbots, Web Scraping, Responsive Command Line Interfaces, Browser Extensions, and React.
- Invited as one of two undergraduates to present the program at the [Inaugural Illinois Computer Science Teaching Workshop](#) to an audience of over 100 educators from several countries across 2 years.

SKILLS

Languages

Java, Ruby, Python, JavaScript, TypeScript, Kotlin, C/C++, Golang, C#

Technologies

Rails, React, PostgreSQL, CI, NodeJS, RabbitMQ, Linux, Git, Selenium, Docker, Firebase, AWS