PUSHKAR TALWALKAR

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EDUCATION

Arizona State University — Tempe, AZ
Masters' in Computer Science — August 2024 – Present

International Institute of Information Technology - Hyderabad(IIIT-H) — Hyderabad, India
Bachelor of Technology in Computer Science Engineering - CGPA: 7.72 — August 2018 – May 2022

EXPERIENCE

Software Development Engineer (Full-Stack Engineer) — June 2022 - June 2024
Visa Inc. — Bangalore, India
- **Designed** and **implemented** Privacy Portals (30K+ LoC), **drove global privacy compliance** with GDPR & other privacy policies.
- **Refactored** the entire backend from **NodeJS to Spring Boot (Java)** (**20K+ LoC**) in just 3 months, boosting **performance and scalability**.
- **Led accessibility enhancements**, achieving **100% ADA & WCAG compliance** for privacy portals.
- **Automated release testing** using Cypress, reducing **manual testing efforts by 70%**.
- **Developed** 2 proprietary **Generative AI POCs**, showcasing innovative internal applications of LLMs.
- Resolved over 100 **critical bugs**, improving backend **reliability and maintainability**.

Research and Development Intern — May 2021 - June 2021
Eigenlytics Data Solutions — Remote
- **Engineered** a state-of-the-art **OCR system** for financial documents, achieving 90% classification accuracy for printed/handwritten text.
- Optimized **Convolutional Autoencoders** to remove **91%** of grid lines from text.
- Generated synthetic datasets with 10K+ images to enhance OCR training, boosting model performance by 50%.
- Collaborated with a team of 7 researchers from various technical backgrounds to successfully complete the project.

PROJECTS

Learning App For Kids with Autism | *NodeJS, Express, MySQL, Agile Dev.* — January 2022 - May 2022
- Created a scheduling & progress-tracking app for 250+ **neurodiverse kids**, connecting them to 30+ therapists.
- Built and tested robust **RESTful APIs** in an **Agile** environment, improving therapy session coordination.
- Delivered analytics features that streamlined progress tracking and report generation.

Financial Document Summariser | *Python, Flask, Docker* — August 2021 - December 2021
- Built a **NLP-based tool** to summarize complex documents - reducing document review time by **50%** for users.
- Developed a **4000+ LoC** software leveraging **NLP / IRE** techniques, **ML** & **Deep Learning**.
- Implemented a **customizable summary** feature, leveraging **machine learning and reader personas**.

Fingerprint Classification System | *Python, Scikit-learn, Git* — October 2020 - December 2020
- Extracted **HOG features** & trained a **1 vs 1 SVM** to classify fingerprint images (index, thumb, etc.).
- Achieved accuracy of **65%** using **Support Vector Machines**; **75%** using **Neural Networks**.
- Performed a wide variety of **morphological operations** to further enhance results.

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, C/C++, SQL, Bash, Erlang, Arduino
Frameworks/Libraries: ReactJS, NodeJS, Spring Boot, Flask, Django, Cypress, FastAPI, PyTorch, Scikit-learn
Tools: Git, Docker, Kubernetes, Jenkins, IntelliJ, Visual Studio, AWS Cloud
Databases: MySQL, PostgreSQL, MongoDB, Redis
Others: RESTful APIs, GraphQL, Agile/Scrum

ACHIEVEMENTS

- US Chess Federation: Recipient of the **"Candidate Master"** title.
- Ensured seamless execution of 5 key events for **Visa's first Privacy Month**.
- **Teaching Assistant Associate** @ IIIT-H, for two semesters - **guiding** over 60 students.
- Represented **ASU** at **Pan-American Chess Competition 2025**.
- **Chess Club Coordinator @ IIIT-H**. Represented **Qatar @ CBSE Chess Nationals 2017**.