

# Mohid Tanveer

[mohid.tanveer011@gmail.com](mailto:mohid.tanveer011@gmail.com) | (731) 803-9164 | [in/mohidtanveer](https://in/mohidtanveer) | [portfolio website](#)

## EDUCATION

### University of California, San Diego

September 2025 - December 2026

*M.S. Computer Science & Engineering, Overall GPA 3.9/4.0*

*San Diego, CA*

- **Relevant courses:** Recommender Systems and Web Mining, Probabilistic Reasoning & Learning, ML: Learning Algorithms, Personal Genomics/Bioinformatics, Unsupervised Learning, Computer Security

### Rhodes College

August 2021 - May 2025

*B.S. Computer Science, Overall GPA 3.91/4.0*

*Memphis, TN*

- **Relevant courses:** Machine Learning, Artificial Intelligence, Mathematical Statistics, Statistical Analysis, Multivariable Calculus, Advanced Algorithms, Theory of Computation, Systems Programming and Computer Organization

## EXPERIENCE

### St. Jude Children's Research Hospital

May 2024 - May 2025

*High-Performance Research Computing - Student Artificial Intelligence Engineer*

*Memphis, TN*

- Developed and deployed an internal chatbot service powered by a Retrieval-Augmented Generation (RAG) pipeline, ensuring secure handling of sensitive HPC system data. Leveraged local LLM inference, vector databases, and knowledge graphs to enhance response precision, achieving an 80% reduction in ServiceDesk ticket volume.
- Collaborated with researchers to support machine learning and AI tool development, including data preprocessing, model training, and pipeline integration for various research projects.

*High-Performance Research Computing - Intern*

- Developed a Flask-based job server microservice on a virtual machine to automate the conversion of tagged image files into SyGlass project files. Integrated with an internal imaging file-sharing platform and leveraged Slurm for resource allocation and job scheduling, streamlining researchers' workflows and improving productivity.
- Developed and implemented automated network testing, data visualization, and analysis systems focused on research storage across St. Jude's campus, enabling consistent performance evaluation and early detection of network anomalies.
- Set up Splunk logging on workstations to analyze machine utilization and generate metrics and data visualizations for informed resource allocation.

### Rhodes College Department of Computer Science

August 2023 - May 2025

*Peer Tutor*

*Memphis, TN*

- Tutored and guided ~200 introductory and intermediate Computer Science students in twice-weekly sessions
- Explained core programming and systems concepts, including object-oriented programming, pointers, memory management, process architecture, and system-level design.

## PROJECTS

### Tubify

February 2025 - April 2025

*Web Application*

[Repository Link](#)

- Built a full-stack app to share and explore music tastes, surfacing friends with similar listening profiles.
- Engineered a scalable data pipeline to batch-process and store extracted audio features and user-specific data in a PostgreSQL-backed architecture, ensuring efficient retrieval and long-term persistence.
- Extracted audio features using Librosa and GPU-accelerated signal processing, applying FFT-based analysis to quantify musical characteristics for richer recommendations.
- Built a personalized music recommender system combining collaborative filtering, content-based analysis, taste clustering, and MMR reranking to adapt recommendations through continuous feedback.

### ScreenSense

December 2025

*Course Project*

[Repository Link](#)

- Built a hybrid EXIF, wavelet-CNN, and sub-pixel based detector for identifying screen re-photos at verification time.
- Achieved state-of-the-art detection using a metadata-driven random-forest prior fused with learned pixel-level signals.

## SKILLS

**Languages:** Advanced in Python. Proficient in C, Java, HTML/CSS, JavaScript, and SQL. Experienced in C++ and R.

**Tools:** TensorFlow, PyTorch, PySpark, Power BI, Docker, NumPy, Scipy, Pandas, Git/GitHub, GNU/Linux, Node.js.

**Languages:** Fluent in English, Urdu, and Punjabi; Conversational Proficiency in Spanish, Hindi | **Honors:** Eagle Scout