Tisha Jhabak

+91 7029835458/+61 450694964 tishajhabak22@gmail.com linkedin.com/in/tisha-jhabak github.com/Tisha-Dev

Technical Skills

Languages: Java, Python, SQL, JavaScript, C#
Technologies & Tools: Node.js, Express.js, React, Flask, TensorFlow, PyTorch, Pandas, Matplotlib, Seaborn, Scikit-learn, HTML5, Bootstrap, AJAX, Git, MongoDB, PostgreSQL, Neo4J, AWS (S3, RDS, DynamoDB), Jira, Trello, Machine Learning

Education

The University of Sydney **Feb 2021 – Jan 2025**
Bachelor of Software Engineering Honours, Dalyell Scholar *Sydney, NSW*

- Recipient of the Sydney International Student Award
- Notable courses: Data Structures and Algorithms, Advanced Software Construction and Design, Data Information and Management, Advanced Data Modelling, Advanced Machine Learning, Advanced Signal Processing with Deep Learning, Natural Language Processing, Cloud Computing

Work Experience

AI Software Engineer **Dec 2024 – Present**
CSIRO *Sydney, NSW*

- Architected and implemented an end-to-end ML pipeline for neonatal tissue segmentation, leveraging foundation models and achieving a 14% improvement in segmentation accuracy
- Developed and evaluated multiple foundation model architectures for tissue segmentation, establishing benchmarks and identifying optimal configurations for clinical deployment
- Engineered custom data preprocessing and augmentation techniques for medical imaging, optimizing model performance for limited training data scenarios

Software Engineer Intern **May 2024 – Aug 2024**
Hanlon Industries *Sydney, NSW*

- Optimized API in Tekla Structures (C#) for 3D modeling of curved billboard structures, enhancing accuracy by 98%
- Applied advanced mathematical models to resolve modeling defects in curved billboard structures, reducing defect occurrence by 75% and improving rendering speed by 40%
- Refactored the codebase to ensure application's compatibility with Tekla Structures 2024 release

Summer Research Intern **Nov 2023 – Feb 2024**
Sydney Informatics Hub *Sydney, NSW*

- Performed thorough analysis and monitoring of workload patterns to identify optimal resource scaling strategies, resulting in efficient resource allocation and reduced overhead costs by 14%
- Integrated load balancing algorithms and containerization techniques to ensure efficient resource utilization, achieving a 23% increase in system performance under varying workloads
- Applied re-architecting methodologies to drive tangible improvements, delivering cost-effective and sustainable solutions in the realm of distributed computing

Software Engineer Intern **Feb 2023 – Jun 2023**
WestMead Health Precinct *Sydney, NSW*

- Designed and revamped A-WPTAS and PCSS tests critical for evaluating users' symptoms as part of a Concussion Detection and Action Plan App
- Conducted thorough unit and integration testing using JUnit testing framework, ensuring seamless transitions between newly added test components and enhanced user interfaces
- Engineered an extensible 'Eye-tracking' module to bolster the app's concussion detection capabilities, achieving a remarkable 36% improvement in concussion detection accuracy

Projects

PaperMind | *Java, React, PostgreSQL, Google APIs* **Jul 2024**

- Developed AI-powered research assistant enabling intuitive academic paper discovery and visualization using Semantic Scholar API
- Integrated Google AI Studio and Google Drive APIs to generate AI-powered paper summaries and enable direct document export

U-Well (University Wellness) | *Java, Node.js, LLM, PostgreSQL* **Nov 2024**

- Created AI-powered health support platform for university students using LLM agents to provide personalized mental health support
- Implemented comprehensive health management features including symptom tracking, appointment scheduling, and professional chat

Campus Eats | *JavaScript, AJAX, Flask* **Mar 2023**

- Supervised a team of 5 to develop an interactive review system, with integration of Google API, to let users discover nearby restaurants near USYD and make informed dining choices
- Engineered deliverables such as fetching restaurant information and enabling real-time updates for reviews and comments using AJAX, resulting in a 32% decrease in page load times