



HOW TO MAINTAIN AN ML PORTFOLIO



QUT
AI & ML
SOCIETY

EVENTS OVERVIEW

WE ARE HERE

WK 4

MAINTAINING AN ML PROFILE WITH **BANDS**

WK 5

SPECIAL GENERAL MEETING

WK 6-8

PROJECT NIGHTS

WK 9

INDUSTRY SPEAKER

MID SEM

ANNUAL GENERAL MEETING



BECOME A MEMBER

Your membership helps us:

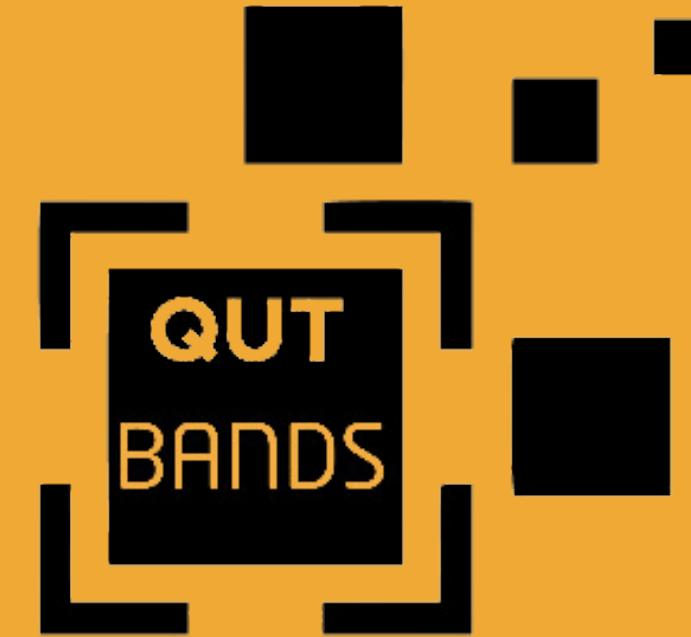
- Run workshops & events
- Host awesome networking nights
- Provide resources for our projects & activities



QUT BANDS

BUSINESS ANALYSIS & DATA SCIENCE CLUB

TRANSFORMING INSIGHTS INTO IMPACT



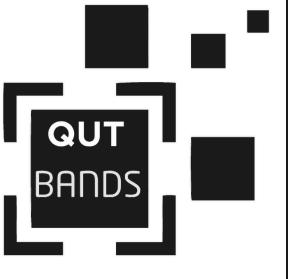
JOIN US

LINKTR.EE/QUTBANDS



@QUTBANDS





EVENT CALENDAR

Semester 2, 2025

Week 1. Amplify+ Hackathon

Together with a team, launch, build and pitch a solution to a real-world problem over the course of a weekend.

Week 2. Welcome Crafts Night

Get to know the community in a fun and casual night of crafting!

Week 3, 4. Projects Night w/ AMS

Dive deeper into your personal coding projects and collaborate with support from fellow students.

Week 5. Tech Industry Night 2025: Cyber, AI & You

Join us for an evening of insights, innovation, and industry connections that will shape the future of tech.

Week 7. BA Luncheon

Network with industry professionals over food as you explore the many ways Business Analysts can thrive.

Week 9. Speed Networking

Practice your interview skills in mock speed interviews. Meet with and pitch yourself to a variety of companies and get feedback!

Week 13. Movie Night w/ AMS and GEMS

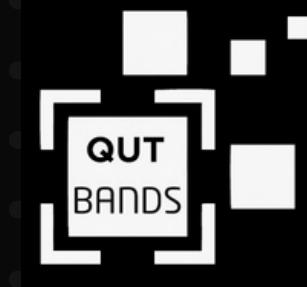
Kick back after a long semester with a night of movies and friends across the QUT community.

Weeks 2, 4, 6, 8 & 10. Coffee Catchup

Coffee catchups with various industry partners.

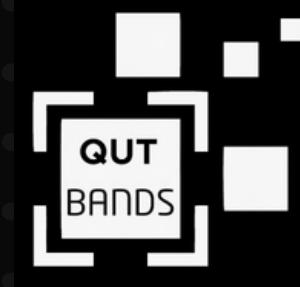
FOR TODAY

Right now, in all its chaotic glory



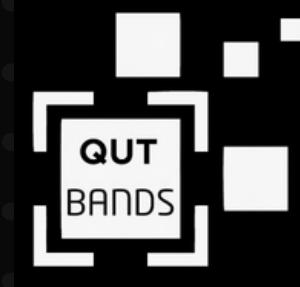
EVENT OVERVIEW

- Keynote from Industry Guest
- ML Newsletters & Staying Updated
- Practical Platforms for ML Portfolio Management
- Keeping Your ML Profile Active and Relevant
- Q&A / Interactive Session - CNNs



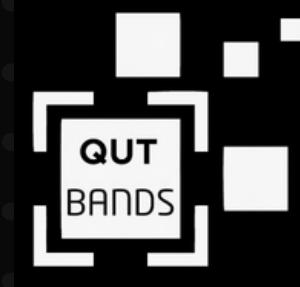
With Albert Dai

KEYNOTE FROM INDUSTRY GUEST



With Nathan

ML NEWSLETTERS & STAYING UPDATED



IMPORTANCE OF STAYING UP TO DATE IN A FAST-MOVING FIELD

Google ML Crash Course

Build a solid foundation in ML concepts and TensorFlow workflows through hands-on exercises.

AWS ML Specialty

Gain expertise in designing, training, and deploying scalable ML models on AWS cloud services.

Azure AI Fundamentals

Understand core AI concepts and learn to implement solutions using Azure AI services.



IMPORTANCE OF STAYING UP TO DATE IN A FAST-MOVING FIELD

Reading Research Papers

- arXiv · Papers with Code
- Explainpaper · Connected Papers
- Practice & Projects
- Kaggle comps & datasets
- Open-source repos on GitHub

Why It Matters

- Rapid tech changes = skills risk becoming outdated
- Historic shift: CNNs → Transformers in just a few years



NEWSLETTERS AND BLOGS:

Top Newsletters

- The Batch - Weekly AI updates
- Data Science Weekly - News, tutorials, jobs
- Import AI - Trends & policy

Top Blogs

- Towards Data Science - Varied ML/DS
- Lil'Log - Deep dives
- Analytics Vidhya - Tutorials & comps



REVERSE-ENGINEER TUTORIALS

Select a blog post, YouTube video, or Kaggle notebook and recreate the project without copying code directly.

Key Actions

- Change the dataset to one relevant to your interests or domain
- Tweak hyperparameters and experiment with model architectures
- Adapt the approach to a new problem or industry use case

Benefits

- Deepen your understanding by actively rebuilding and modifying projects
- Develop originality and problem-solving skills beyond following tutorials



SKILLS FOR SOCIETY PROJECTS

Partner with a student club or local non-profit to solve a data problem.

Examples

- Build predictive models using regression, classification, or clustering techniques
- Create computer vision applications for image recognition

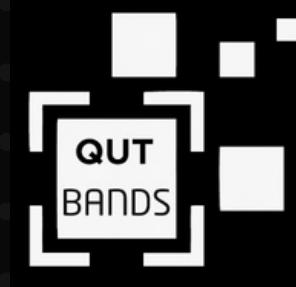
Benefits

- Real-world context and a portfolio project with impact.
- Gain experience with industry-standard tools, pipelines, and collaboration workflows



with Zac

PRACTICAL PLATFORMS FOR ML PORTFOLIO MANAGEMENT



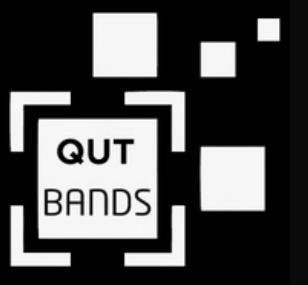
TRACK YOUR MODEL & DATA CHANGES

Platform

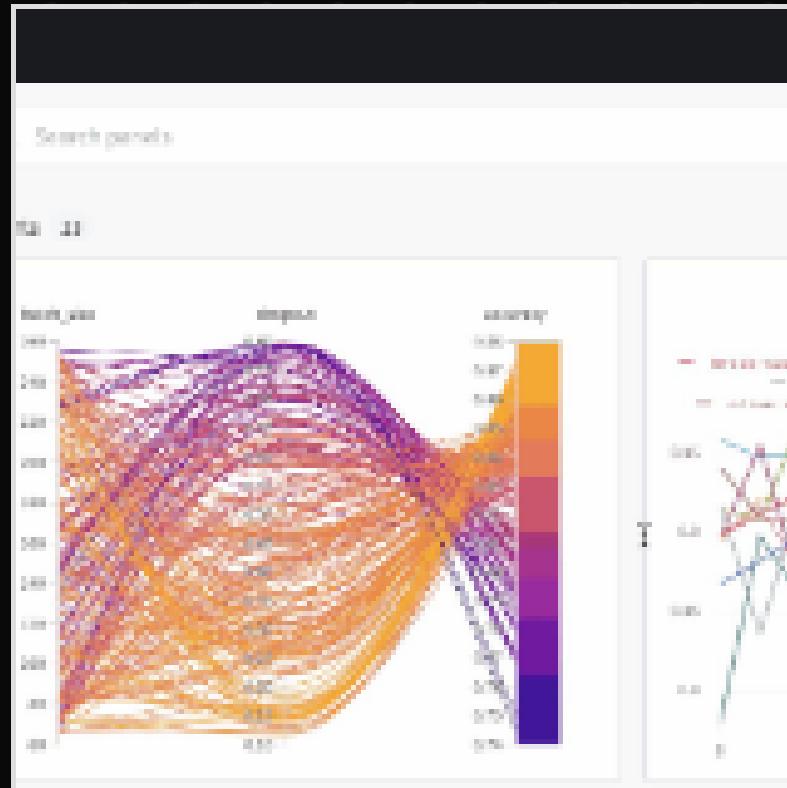
- Weights & Biases + DVC

Key Actions

- Create a single “Portfolio” project in W&B
- Log each run: hyperparams, DVC-tagged dataset, metrics, final artifact
- Version raw & preprocessed data with DVC tags (v1.0, v1.1)
- Link DVC tags to W&B runs for full traceability



TRACK YOUR MODEL & DATA CHANGES



The AI Developer Platform

Weights & Biases is the leading AI developer platform to train and fine-tune models, manage models from experimentation to production, and...

 Weights & Biases

<https://wandb.ai/site>



TRACK YOUR MODEL & DATA CHANGES

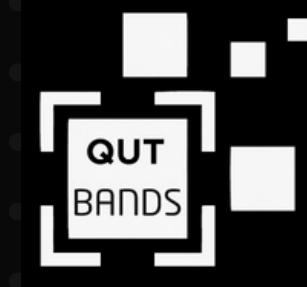


Get Started: Data Pipelines

Get started with DVC pipelines. Learn how to capture, organize, version, and reproduce your data science and machine learning workflows.

 Data Version Control · DVC

<https://dvc.org/doc/start/data-pipelines/data-pipelines>



KEEP A MAINTENANCE LOG

Platform

- Obsidian (Daily Notes)

Structure

- Auto-generate YYYY-MM-DD notes
- Section “## Portfolio Maintenance” when you touch any project
- Example entries:
 - “Switched ResNet to MobileNet; +1.2% top-1”
 - “Patched CSV loader headers”
 - “Tested Heroku endpoint; 200 OK”



REFLECT ON ISSUES & IMPROVEMENTS

Platform

- GitHub Issues (private repo)

Issue Template

1. Title: "Improve: [ProjectName] - [What]"
2. Current behavior + metrics
3. Proposed change + experiment IDs
4. Outcome & next steps

Labels

- accuracy, performance, docs (filter by category on demo day)



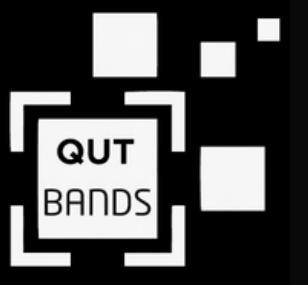
CAPTURE NEW TECHNIQUES & LIBRARIES

Platform

- Evernote

Organization

- Notebooks: "ML Papers," "Tools & Libraries," "Recipes & Snippets"
- Clip URLs, paste code/diagrams
- Tag new items "#to-review" for weekly prototyping



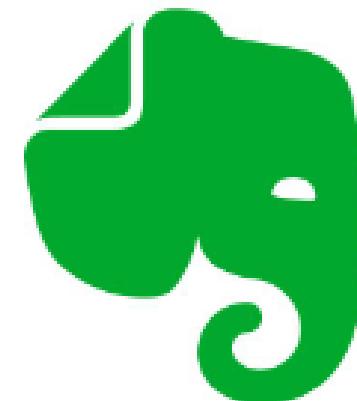
CAPTURE NEW TECHNIQUES & LIBRARIES

Get to know Evernote

From staying on top of your to-dos to making your schedule work for you, Evernote helps bring order to the chaos.

 evernote.com

<https://evernote.com/features>



Export Notes and Notebooks as ENEX or HTML

Note: Exporting is only available using the Evernote desktop app. It is not possible to perform exports ...

 Evernote Help & Learning

[https://help.evernote.com/hc/en-us/articles/209005557-
Export-Notes-and-Notebooks-as-ENEX-or-HTML](https://help.evernote.com/hc/en-us/articles/209005557-Export-Notes-and-Notebooks-as-ENEX-or-HTML)



UPDATE YOUR MAINTENANCE GOALS

Platform

- Trello

Board Structure

1. Quarterly Goals (e.g. +3% accuracy, CI/CD for retraining)
2. Monthly Milestones (e.g. integrate W&B in README)
3. Next Actions (bite-sized cards: "Write DVC pull Action")

Cadence

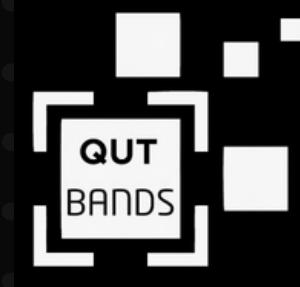
- Month-start: move Done cards, refill Next Actions



UPDATE YOUR MAINTENANCE GOALS



<https://trello.com/guide/create-project#add-tasks-and-to-dos>



TOOLS AT A GLANCE

Habit	Platform	Key Artefact
Track Models & Data	Weights & Biases + DVC	W&B Runs + DVC tags
Maintenance Log	Obsidian	Daily Note entries
Issues & Improvements	GitHub Issues	Issue cards with labels
New Techniques & Libraries	Evernote	Clipped articles & code snippets
Update Goals	Trello	Board with Goals → Milestones → Actions
Review & Adjustment	Google Calendar + Weekdone	Calendar blocks + OKR updates

Also with Zac

KEEPING YOUR ML PROFILE ACTIVE AND RELEVANT



CHOOSING THE RIGHT TYPES OF PROJECTS TO WORK ON

Start Simple

Begin with projects like linear regression that show how you can find basic patterns in data.

Build Up Complexity

Move on to projects like logistic regression to learn how to make decisions based on data.

Explore Advanced Techniques

Try projects like convolutional neural networks that help computers recognize images or sounds for more challenging problems.



WRITING BLOG POSTS/TUTORIALS

Break Down Complex Ideas

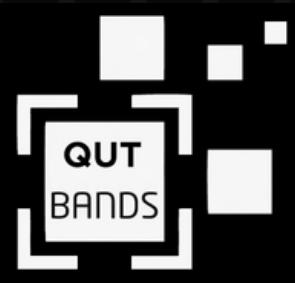
Write posts that explain machine learning concepts like “How computers learn from data” using everyday examples.

Show Step-by-Step Projects

Create tutorials walking readers through simple projects, like predicting house prices or recognizing handwritten numbers.

Share Your Unique Insights

Talk about challenges you faced or clever solutions you discovered to help others learn from your experience.



LINKING GITHUB, KAGGLE, AND BLOG ON LINKEDIN/RESUME

Showcase Your Work

Include links to your GitHub (code projects), Kaggle (data competitions), and blog to give people a full picture of your skills.

Make It Easy to Find

Put these links prominently on your LinkedIn profile and resume so recruiters can quickly see your experience.

Build Trust and Credibility

Having active, public profiles proves you're serious and continuously learning in machine learning.



CONSISTENT UPDATES

Add New Projects Regularly

Upload fresh machine learning projects or updated versions of existing ones every few weeks.

Post Recent Blog Articles

Share tutorials or insights about the latest tools or techniques you've learned.

Update Skills and Tools

Keep your profile's listed skills current, like adding Python libraries or frameworks you now use.



TRACK YOUR LEARNING JOURNEY

Use Google Docs or Notion (Free Plan)

Keep a simple document or Notion page to write down new ML concepts, tools (like Pandas or Keras), and courses you complete.

Write Short Reflections on Medium or Dev.to

Publish posts about challenges you faced, such as tuning a model or cleaning data, and explain how you solved them.

Set Goals in Google Keep or Notion

Keep track of your project milestones and learning goals in Google Keep notes or Notion to stay organized and motivated.



EXPAND YOUR PORTFOLIO WITH REAL-WORLD ML APPLICATIONS

Add Projects with Practical Use Cases

Build projects like spam detection, sentiment analysis, or image classification to show applicable skills.

Include End-to-End Pipelines

Show how you handle data collection, cleaning, modeling, and deployment in a single project.

Link to Demo or Interactive Apps

Host simple web demos of your models using free platforms like Streamlit or Binder and link them on your profile.



PARTICIPATE IN ML COMPETITIONS REGULARLY

Compete on Kaggle or DrivenData

Keep entering new challenges to practice skills and show consistent involvement in the ML community.

Update Competition Profiles and Kernels

Regularly improve your Kaggle notebooks (kernels) with better code, explanations, and new insights.

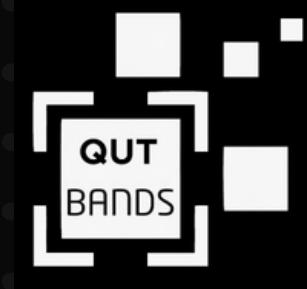
Share Lessons Learned

Write blog posts reflecting on competition strategies, failures, and successes.

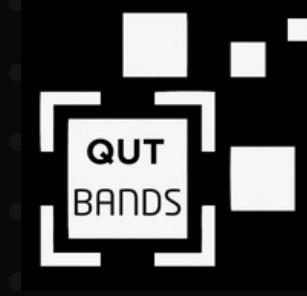


Pls free Zac

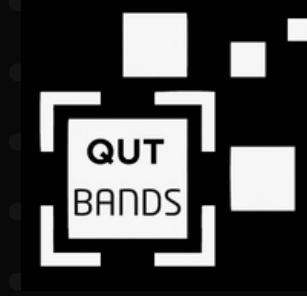
Q&A / INTERACTIVE SESSION



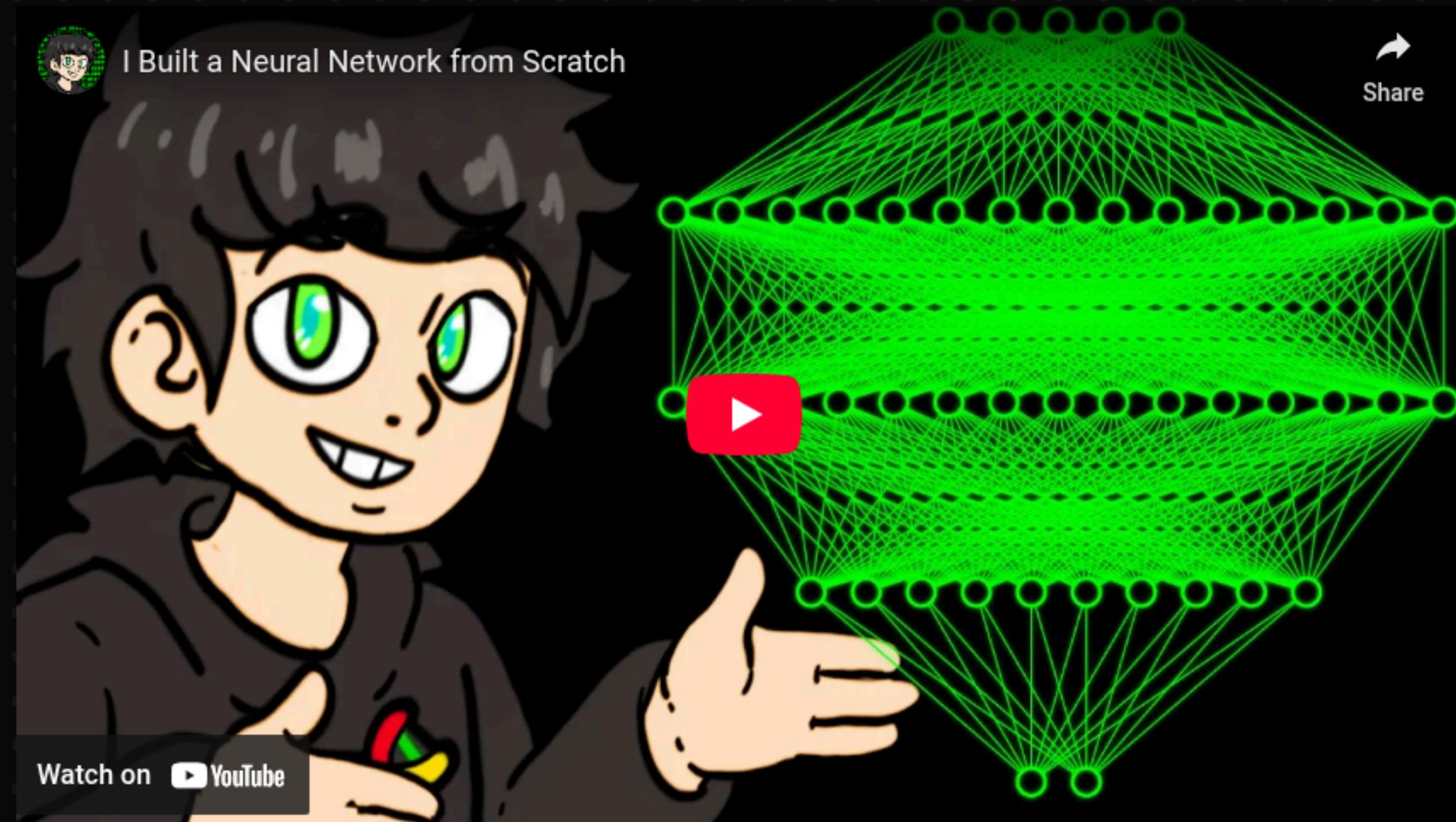
ANY QUESTIONS SO FAR



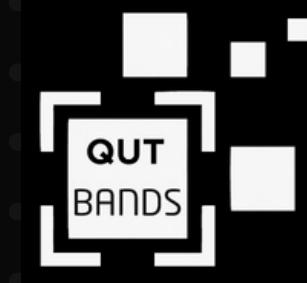
LIVE DEMO

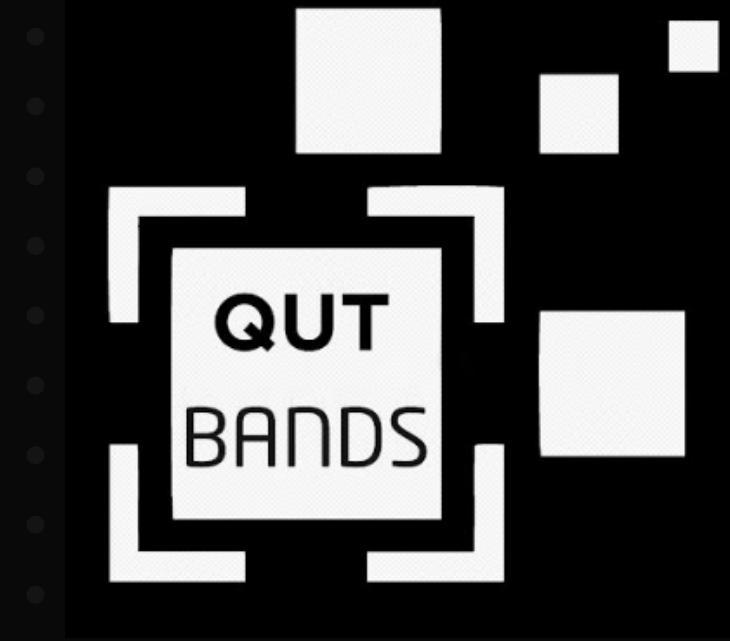


WALKTHROUGH



https://www.youtube.com/watch?v=cAkMcPfY_Ns

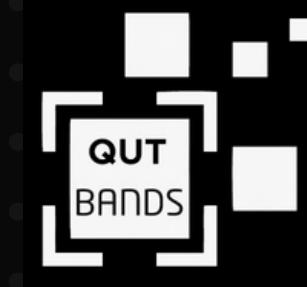




THANK YOU FOR COMING

WHAT'S NEXT

Upcoming Events



UPCOMING EVENT



QUT
AI & ML
SOCIETY



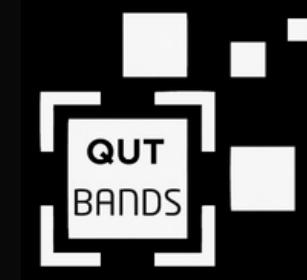
SPECIAL GENERAL MEETING

Want to be a part of the team?

 Week 5, Tue 19/8, 5:30PM-7:30PM

 QUT GP-B223

CLICK THE LINK IN THE CAPTION TO SIGN UP!
LEAD. BUILD. INSPIRE.



2025 QUT TECH INDUSTRY NIGHT

CYBER, AI & YOU

Dive into the frontlines of tech where digital defence meets intelligent design, and discover how you can shape a safer tomorrow.



GET YOUR
TICKETS HERE!

FRIDAY 22nd August

5:30 PM - 10 PM

**Gardens Theatre,
X Block QUT Gardens Point**