

ABARNA RAJARETHINAM

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<https://www.linkedin.com/in/abarna-rj/>

SUMMARY

Creative and analytical thinker with a strong passion for learning and self-expression. Highly motivated and adaptable, with a proven ability to solve problems, think innovatively, and contribute fresh ideas. Known for being a collaborative team player with excellent communication skills, fostering positive and supportive work environments. Remains calm and focused under pressure, thriving in fast-paced settings while bringing determination, adaptability, and a can-do attitude to every challenge.

EDUCATION

Diploma in Applied AI and Analytics

Apr 2024 - Present

Singapore Polytechnic

Current grade: 3.95 CGPA

- **Director's Honour Roll** for AY2024/2025
- Pursuing a Certificate in Advanced Mathematics
- Currently a Participant, Singapore Youth Leadership Programme
- Competed in multiple hackaathons, including PolyFintech (**Finalist**) and NUS Humanity
- Collaborated on interdisciplinary projects with peers from diverse backgrounds
- Active member, Singapore Polytechnic Astronomy Club and Life Arts Club

O-level Certificate

Jan 2020 - Dec 2023

Clementi Town Secondary School

Grade : L1R5 - 9 (RAW), L1R4 - 6 (RAW)

- VIA Head – Led planning and execution of a Community Service Project
- Participated in the Singapore Mathematical Olympiad (Senior Section, 2022)
- Winner, W1 Art Space Student Artists Award (2022)

PROJECTS

- **AI & Machine Learning:** Built an AI wealth advisor (PolyFinTech finalist), implemented advanced DQN & DDPG algorithms, and trained ACGAN models on EMNIST data.
- **NLP & Computer Vision:** Delivered LSTM sentiment analysis models and optimized CNNs for image classification.
- **Data Science & Analytics:** Applied K-Means & PCA for market segmentation; designed Tableau dashboards revealing HDB resale insights.
- **Predictive Modelling:** Developed classification systems for machine health and regression models for house price prediction.
- **Database & Backend:** Designed a MySQL OLTP hospital database; built a scalable Flask PDF generation service.
- **Web & App Development:** Deployed a full-stack fitness platform, launched a LAMP WordPress site, and prototyped a gamified children's fitness app.

SKILLS

- **Programming:** Python, JavaScript, HTML, CSS
- **ML/DL Frameworks:** TensorFlow, Keras, PyTorch, Scikit-learn
- **Deep Learning Models:** DQN, CGAN, ACGAN, CNN, RNN
- **Data Science:** Preprocessing, Feature Engineering, Predictive Modeling
- **Visualization:** Tableau, Power BI, Plotly, Dash
- **Databases:** SQL, MongoDB, Data Warehousing
- **Cloud & Deployment:** API Integration, Model Deployment
- **Version Control:** Git, GitHub
- **Core Competencies:** Critical Thinking & Problem-Solving, Cross-Functional Collaboration, Technical Communication, Rapid Learning & Adaptability, Professionalism & Reliability

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WORK EXPERIENCE

ARP ENGINEERING PTE LTD

Jan 2024- March 2024

Admin Assistant

- Performed administrative tasks including filing, data entry, and document preparation
 - Gained proficiency in Microsoft Office tools (Word, Excel, Outlook)
 - Developed multitasking and time management skills in a fast-paced office setting
 - Demonstrated professionalism, punctuality, and reliability consistently
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CERTIFICATES/COURSES

National Youth Council Leadership Camp (NYCLC): Participated in a leadership course for 3 days emphasizing team-building, communication, and civic engagement (Jun 2025)

Introduction to Deep Learning with Keras: Completed a DataCamp course on Keras fundamentals for deep learning (Jan 2025)

Supervised Learning with Scikit-learn: Completed a DataCamp course on supervised machine learning using scikit-learn (Jan 2024)
