

Allen Ben Philipose

Data Engineer • Analytics Consultant • AI/ML Developer

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PROFESSIONAL SUMMARY

Results-driven Data Engineer and Analyst with over 2 years of experience in **technical consulting**, specialising in the design and deployment of cloud-native ETL and ML pipelines processing **terabyte-scale** datasets to drive high-impact **business decisions**. Pursuing a **Master of Computer Science** in Data Science & AI at the **University of Sydney** (WAM: 85.1, High Distinction), with a focus on statistical modelling, cloud architecture, big data engineering, and applied machine learning.

Proven track record in architecting **automated and scalable analytics solutions**, translating complex data architectures to deliver actionable business intelligence. Committed to leveraging my expertise to drive technical initiatives that yield meaningful organisational impact for the Australian enterprise and technology sectors.

WORK EXPERIENCE

Data & Analytics Intern

Feb 2026 – Mar 2026

L.E.K. Consulting • Sydney, New South Wales, Australia

- Engineered end-to-end **NLP Python pipelines** to analyse sentiment and market behaviour, integrating geospatial indexing and catchment-based modelling to deliver **geo-specific insights** across multiple industry verticals.
- Developed reusable, modular **Alteryx workflows** for spatial blending, predictive modelling, and analytical reporting, reducing manual processing effort while improving delivery quality and analytical reproducibility across cases.

Decision Analytics Associate Consultant

Jul 2022 – Jul 2024

ZS Associates • Bangalore, Karnataka, India

- Promoted** to Associate Consultant in Jun 2024, in recognition of consistent delivery and technical leadership.
- Architected a secure, client-specific **AWS environment**, configuring compute (EC2, EMR) and storage (S3, RDS) layers for optimal efficiency and implementing cost-monitoring guardrails that drove a **20% reduction** in monthly cloud expenditure, delivering a scalable ecosystem for cross-functional engineering collaboration.
- Delivered **Python** and **SQL** upskilling workshops to 100+ onboarding analysts, standardising data science and engineering **best practices**, helping accelerate productivity and documentation quality across the analytics function.
- Designed and deployed **automated batch ETL pipelines** that processed incremental anonymised pharmaceutical data to generate weekly sales actions and brand performance insights that informed client commercial strategy.
- Built **scalable PySpark pipeline frameworks** purpose-built for multi-brand, multi-market expansion across client product portfolios generating **\$5B+ annually** – reducing deployment timelines, improving service profitability, and maintaining performance and stability at scale.

Decision Analytics Intern

Jan 2022 – Jun 2022

ZS Associates • Bangalore, Karnataka, India

- Developed analytical solutions to quantify **product impact** and uncover **white-space opportunities**, delivering insights that shaped the client's go-to-market strategy and identified high-growth expansion opportunities.
- Applied **Real World Data (RWD)** methodologies in the **pharmaceutical** domain, developing proficiency in patient-level data handling, anonymisation protocols, regulatory compliance frameworks, and translating complex clinical datasets into actionable analytical outputs.

Technical Lead UI/UX

Dec 2020 – Aug 2021

Skillship Foundation • Vellore, Tamil Nadu, India

- Mentored three student software development teams on **web frameworks**, guided full-cycle project delivery, and led **UX wireframing** efforts to redesign the organisation's official website.
- Established a unified **social media visual identity** and formalised PR team guidelines, driving a **70% increase** in event attendance and strengthening student engagement across the organisation.

Head of Design

Aug 2020 – Nov 2021

IoThinC - VIT • Vellore, Tamil Nadu, India

- Structured **digital learning pathways** and facilitated fortnightly **upskilling sessions** for a 30-member cross-functional team, enabling skill development and bridging the gap between design and technology domains.

EDUCATION

Master of Computer Science – Data Science & Artificial Intelligence

Jul 2024 – Jun 2026

University of Sydney, New South Wales, Australia • WAM: 85.1/100

- Sydney International Student Award Recipient, a merit-based **scholarship** awarded to high-achieving students.
- **Leadership:** Peer Mentoring Advisor, supporting incoming engineering students with academic and social transition. Volunteer at the University of Sydney Union (USU).
- **Professional Affiliations:** Google Developer Group (GDG) Sydney, Engineers Australia, Sydney Computing Society, 180 Degrees Consulting.

Bachelor of Technology – Electronics & Communication Engineering

Jul 2018 – Jun 2022

Vellore Institute of Technology, Tamil Nadu, India • CGPA: 8.87/10

- Specialised in Internet of Things (IoT) & Sensors.
- **Leadership:** Board Member at IoThinC, leading technical mentorship and architectural guidance for project initiatives focused on Digital Image Processing (DIP) and Natural Language Processing (NLP). Founded and organised the inaugural IoThon, the university's flagship **IoT hackathon**.
- **Professional Affiliations:** IEEE Robotics & Automation Society, IEEE Communications Society.

PROJECTS

Emergency Vehicle Detection • Python, TensorFlow, OpenCV, YOLO • Jun 2021

Developed a cost-effective, real-time system that processes live surveillance feeds using TensorFlow to detect emergency vehicles and dynamically clear their paths. Designed for scalability across diverse environmental conditions and optimised image recognition latency to support faster response times.

LLM Surveillance Video Querying • Python, X3D CNN, Agentic AI, Vector DB • Apr 2026

Architected a multi-modal AI security platform enabling operators to query large-scale surveillance footage using natural language inputs. Leveraged transformer-based vision-language models to surface time-indexed events and objects, eliminating manual review of high-volume video archives and reducing investigation time.

Sentiment Analysis on Racism • Python, SpaCy, NLTK, Plotly • Oct 2020

Conducted a large-scale NLP study analysing public sentiment across U.S. geographic regions using web-scraped Twitter data collected following the George Floyd case. Applied tokenisation, named entity recognition, and sentiment scoring to identify statistically meaningful regional patterns and shifts in public opinion over time.

Deep Learning Emotion Recognition • Python, CNN, GAF, PyFeat • Dec 2025

Engineered a novel framework that converts 1D physiological time-series signals into 2D Gramian Angular Field image representations, enabling CNNs to classify emotional states and stress levels with high accuracy. Bridges biomedical signal processing and image-based deep learning, with applications in mental health monitoring.

CORE SKILLS

Expertise in the end-to-end lifecycle of data products, from infrastructure provisioning, data preparation, and robust ETL orchestration to the deployment of advanced ML models and LLM frameworks to generate stakeholder-ready insights.

- **Data Science & ML:** TensorFlow, PyTorch, Scikit-learn, NLP, YOLO, Transformers, OpenCV, Pandas, NumPy, RAG.
- **Data Engineering:** Apache Spark, PySpark, Apache Airflow, Hadoop, Alteryx, Redshift, DBT, ETL/ELT Pipelines.
- **Data Analytics & BI:** MySQL, PostgreSQL, Snowflake, Tableau, Databricks, Google Analytics, Power BI, Excel.
- **Cloud & Infrastructure:** Amazon Web Services (AWS), Google Cloud Platform (GCP), Firebase. CI/CD Pipelines.
- **Software Development:** Python, SQL, C/C++, BASH, Java (Spring, Hibernate), GraphQL, REST APIs, Git, YAML.
- **Design & Collaboration:** Jira, Figma, Postman, Adobe Creative Cloud, Dialogflow, Microsoft 365, LaTeX.

CERTIFICATIONS & ACHIEVEMENTS

- **Cloud & Platform Certifications:** AWS **Certified** Cloud Practitioner (2024), **30+** Google Cloud Skill Badges.
- **Competitive Programming:** **8 ×** HackerRank Certifications, **7 × 5-Star** HackerRank Badges, **3-Star** CodeChef Profile.
- **Learning & Professional Development:** **14 ×** LinkedIn Skill Badges, **40+** Coursera Certifications, **50+** LinkedIn Learning Certifications, **40+** Skillsoft Certifications.
- **Extracurricular Honours:** Vice Band Major (2016), Rock Band Bass Guitarist (2018).

References available upon request