

Aldrich Vincent

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EDUCATION

Bina Tunas Bangsa School (High School) <i>International Baccalaureate (IB) Diploma Programme (Grade : 37/45)</i>	Jakarta <i>Graduation Date: May 2023</i>
Jakarta International College <i>Bachelor of Computer Science (GPA: 4.0/4.0)</i>	Jakarta <i>Graduation Date: Feb 2024</i>
Monash University <i>Bachelor of Computer Science (GPA : 3.81/4.0)</i>	Melbourne, VIC <i>Graduation Date: Dec 2025</i>

TECHNICAL SKILLS

- Languages: Python, Java, SQL, JavaScript
- Tools & Frameworks : Pandas, NumPy, Firebase, Realtime DB, Git, Tableau, PowerBI
- Areas of Interest: Data Science, Machine Learning, Recommender Systems, Data Visualization

PROJECT EXPERIENCE

Monash University - Data Visualization <i>Climate Extremes & Environmental Impact Article</i>	Melbourne <i>Jul 2025 - Nov 2025</i>
<ul style="list-style-type: none">Designed and developed an advanced interactive climate analytics dashboard using Vega-Lite and Vega, integrating geospatial, temporal, and multivariate visualizations to explore climate change impacts.Built a global temperature anomaly map (1940–2025) with GIS projections and TopoJSON, enabling year-based exploration and country-level selection.Implemented linked and coordinated views, synchronizing map selections with time-series bar charts to reveal long-term temperature trends by country.Developed multi-layered visualizations including climate driver vs rainfall analysis (ENSO, IOD, SAM), radar charts, bubble plots, treemaps, and annotated event timelines.Applied advanced interaction techniques such as cross-view signal binding, legend-based filtering, hover tooltips, opacity highlighting, and event annotations for storytelling.Integrated high-resolution GIS datasets to visualize koala habitats, bushfire hotspots, and state-level environmental impacts across Australia.Prioritized visual clarity and UX, using custom typography, color semantics, transparent layering, and SVG rendering for performance and readability.	

Monash University - Data Warehouse <i>MonEquip Data Warehousing Project</i>	Melbourne <i>Jul 2025 - Nov 2025</i>
<ul style="list-style-type: none">Designed and implemented an end-to-end data warehouse for Monash Equipment Centre (MonEquip), an Australian construction equipment sales and hire company, to support business-focused reporting and analyticsPerformed extensive data exploration and cleaning on operational datasets, resolving duplicates, incorrect pricing calculations, invalid foreign keys, date anomalies, and inconsistent formatting to ensure data integrityDesigned a star schema with fact tables for sales and hire transactions and dimension tables for time, category, branch, and customer type, enabling efficient multi-dimensional analysisApplied Slowly Changing Dimensions (SCD Type 2) and temporal modelling concepts to preserve historical accuracy for equipment pricing and attributesDeveloped advanced SQL analytics using ROLLUP, CUBE, window functions, and ranking methods to analyse revenue trends, seasonality, category performance, branch-level insights, and sales vs hire dynamicsBuilt an interactive Power BI dashboard visualising key KPIs such as revenue growth, seasonal demand, top-performing equipment categories, and branch performance to support management decision-making	

Monash University - FIT3163 Data Science Project	Melbourne, VIC
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- Developed a full-stack NBA Player Ranking Dashboard using Flask (Python), R, and MongoDB to deliver real-time, transparent player performance rankings with interactive JavaScript and Chart.js visualisations
- Designed and implemented a custom ranking algorithm incorporating z-score normalisation, percentile rankings, PCA, and weighted composite scoring to fairly evaluate players across positions
- Built automated data pipelines using hoopR and nbastatR in R to fetch, clean, and process live NBA data, with weekly scheduled updates via cron jobs
- Implemented interactive features including side-by-side player comparison, hot/cold streak tracking, and advanced filtering by position, team, and statistical category
- Containerised the application with Docker and Docker Compose for consistent development and deployment environments
- Collaborated in a team of 4 using Agile methodology with two-week sprints, Jira for backlog management, GitHub for version control, and Discord for real-time communication

Monash Macathon 2025**Melbourne, VIC***Monash Mates -- Peer Mentoring App (Team Project)**Apr 2025 - Apr 2025*

- Developed an Android-based peer mentoring platform in Android Studio connecting Monash students and alumni for tailored academic and career support.
- Built a recommendation system to match mentees with mentors based on interests, goals, and academic background using Firebase Firestore queries
- Implemented real-time chat, secure login, and media upload using Firebase (Auth, Realtime DB, Firestore, Storage) and Jetpack Compose in Kotlin
- Collaborated in a team of 4 using Agile methodology, ensuring efficient task allocation and version control with Git

WORK EXPERIENCE**Veve Clothing****Jakarta***Operational Management**Jan 2022 - Dec 2022*

- Designed and maintained a stock and sales tracking spreadsheet in Excel for data-driven decision making
- Coordinated logistics workflows, reducing inventory processing time by streamlining order tracking
- Managed supplier negotiations and cost analysis to ensure efficiency in procurement
- Led product research and social media analytics to improve campaign targeting and engagement

EXTRACURRICULAR & LEADERSHIP**Bina Tunas Bangsa School****Jakarta***OSIS (Student Council)**Jan 2021 - Dec 2023*

- Coordinated student-led initiatives such as school events, community service projects, and academic competitions, fostering leadership and collaboration
- Acted as a liaison between students and school administration, representing student concerns and contributing to decision-making
- Led a team of 10 peers to successfully organize a charity donation upon homeless people

AWARDS**Top 10 Academic Excellence Award**

: Recognized among the top 10 highest-performing IB students at Bina Tunas Bangsa School

Principal's Merit Award

: Awarded for outstanding academic performance and exemplary conduct in Jakarta International College