Keegan Hidson

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Education

Western Sydney University   **Mar 2020 – Nov 2023**
Bachelor of Information and Communications Technology   *Sydney, NSW*

Experience

Cochlear Limited   **Nov 2023 – Present**
Graduate Software Engineer   *Swift, iOS, Bluetooth*   *Macquarie Park, NSW*
- Working on Cochlear's surgical navigation software, providing surgeons with real-time guidance during implant procedures.
- Migrated Bluetooth permission flow to AccessorySetupKit, standardising device discovery and configuration on iPadOS 18.

Software Engineer   *C#, .NET, Python, AWS (Lambda)*
- Worked on Cochlear's fitting software, empowering audiologists to program implants and personalise hearing outcomes.
- Engineered a C# desktop application for scalable data management in multi-site clinics and clinician outreach programs.
- Developed a Mixpanel analytics service, providing insights from 1M+ fitting sessions to guide development decisions.
- Built a Sentry crash reporting service, processing 100+ crashes daily and improving bug resolution by grouping issues.

Software Engineer Intern   *TypeScript, Node.js, AWS (ECS, S3), Docker, Terraform*
- Developed a test framework to standardise and automate the testing of APIs, increasing overall test coverage by 30%.
- Improved microservice reliability by building a real-time monitoring tool, responsible for detecting critical service outages.

Western Sydney University   **Oct 2022 – Nov 2023**
Junior Data Engineer   *Python, SQL, Oracle, ETL*   *Sydney, NSW*
- Built and optimised ETL pipelines to capture prospective student data, driving increased applications and enrolment rates.
- Automated extraction and transformation of over 20,000 student records daily, reducing processing time by 80%.
- Collaborated with admissions to deploy data models for targeted recruitment and engagement campaigns.

Amazon   **Feb 2022 – Aug 2022**
IT Support Engineer   *Linux, Troubleshooting*   *Sydney, NSW*
- Resolved hardware, software, and network issues for end-users, improving average ticket resolution time by 25%.
- Supported senior engineers in diagnosing and resolving site-wide network and service outages.

Volunteering

Western Sydney Solar Team 🔗   **Aug 2022 – Jun 2023**
Software Engineer
- A student-led engineering project aimed at building a solar powered vehicle to compete in the 2023 World Solar Challenge.
- Developed a Python application to calculate and visualise optimal solar charging angles based on geographical location.
- Improved charging efficiency during control stops, supporting peak energy intake throughout the 3000km journey.

Projects

Vivid Sync: RGB-LED Display System 🔗   *MERN, AWS (EC2, S3), Tailwind — Python, Flask, Ngrok, Raspberry Pi*
- Led a team of 5 to develop an IoT project for remotely rendering image and video content on a custom-built LED strip board.
- Achieved finalist status in the WSU 2023 Optimize award, recognising innovative engineering and project excellence.

WSU Computing Society: Leetcode Bot 🔗 *Node.js, TypeScript, GraphQL*
- Created a Discord bot aimed at providing students with a community-driven space to prepare for technical interviews.
- Integrated Leetcode's GraphQL API for question, hint, and solution retrieval to provide a simulated interview setting.

Electric Vehicle Charging Network 🔗   *C++, Graph Theory, Algorithm Design*
- Developed a C++ application to simulate EV travel routes and charging costs within the Sydney Metropolitan area.
- Implemented graph algorithms such as Dijkstra's to optimize EV routes and charging station selection.

Cochlear Hackathon 2023: RAG LLM Chatbot — *Python, AWS (Bedrock), Streamlit*
- Collaborated with developers to build a Retrieval-Augmented Generation (RAG) chatbot for Cochlear-related queries.
- Awarded first place for innovative use of proprietary data in LLM fine-tuning, without compromising data security.

Technical Skills

Languages: C++, C#, Python, Java, JavaScript, TypeScript, SQL

Frameworks: React, Node.js, Express.js, MongoDB, Serverless, Flask, Tailwind, Bootstrap, .NET

Technologies/Developer Tools: AWS, Git, CI/CD, Terraform, Docker, Ngrok, Postman, Sentry, Mixpanel, Raspberry Pi