Jacob Turnbull

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Career Objective

I am seeking a role in AI/ML, R&D, or Software Engineering. I am an aspiring and driven student passionate about computers and challenges. I am a social, energetic and respectful person. I enjoy working on anything front-end or back-end as long as there is a challenge and an opportunity to learn technical or fundamental skills. As a summer intern, I wish to gain practical experience within a solo or team atmosphere and apply the knowledge and skills I am learning.

When not studying or exploring computer aspects, I value my relations with friends, family and those close to me. I can be found in the gym, where I value my physical and mental fitness and aspire to represent New Zealand in 2026 through powerlifting. I also can be found exploring new passions and binge-watching video

Technical Skills

Python

- NumPy, Pandas, Scikit-Learn, Imblearn, Tkinter, Matplotlib
- Developed strong proficiency in Python through university-level coursework and self-directed learning. Designed and implemented a heart disease risk prediction application, leveraging a Random Forest classifier with 99% accuracy on Kaggle-sourced data.
- The project demonstrated advanced use of data preprocessing (cleaning, encoding, scaling), model training with Scikit-Learn
- A fully functional graphical interface was built with Tkinter to deliver an intuitive user experience.

Full Stack Web Development

- Next.is. TypeScript, JavaScript, HTML, CSS, Bootstrap, Prisma
- Engineered a full-stack web platform to serve as a digital catalogue for school and community clubs, featuring user authentication, CRUD capabilities, and responsive design.
- Built using Next.js and TypeScript for a scalable architecture, styled with Bootstrap, and integrated with a MySQL database via Prisma ORM.
- Additionally, I created a personal portfolio website, further refining my frontend design and development skills while maintaining responsiveness and performance across devices.

Java

Built foundational programming knowledge through high school projects and university coursework, focusing on object-oriented design principles, algorithmic thinking, and problem decomposition.

Fundamental Skills

Highly Motivated

I am a highly motivated and self-driven individual with a strong passion for learning through hands-on experience. I actively seek opportunities to build, test, and refine ideas, frequently exploring new languages, libraries and APIs to expand my knowledge. My motivation is evident in my academic pursuits, such as completing a university-level Computer Science UniStart paper independently, earning an A+, and my approach to NCEA externals, where I taught myself advanced topics like complex numbers and electricity not covered in class. Every project I have taken has been personal, requiring me to learn unfamiliar libraries, languages, and frameworks to bring planned concepts to life.

Work Setting

I work effectively independently and within a team, easily adapting to varied environments and work styles. My adaptability and resilience were tested and proven during my time at Claymark, where I regularly worked 12-hour shifts and adapted to sudden transitions between day and night shifts. This experience required rapid adjustment and strong collaboration to operate machinery safely under changing conditions. In contrast, my work in retail demands strong interpersonal skills and the ability to align my communication style with diverse customer personalities, working independently and as part of a sales team to deliver excellent service and contribute to sales goals.

Fundamental Skills

Enthusiastic

My enthusiasm for creation and continuous improvement drives my development journey. I am inspired by the process, from identifying real-world needs to designing, testing, and refining practical and impactful solutions. This pushes me to dive deep into documentation, create understandings of problems I may have never thought of, experiment without fear of breaking things, and consistently challenge myself with increasingly complex projects. My self-taught success in achieving an A+ in a university Computer Science paper and independently learning advanced NCEA topics reflects my commitment to pushing boundaries, not just to complete projects, but to understand a new way of thinking.

Problem Solving

I approach challenges with a solution-focused mindset and critical thinking skills. I thrive at tackling complex, time-intensive issues, especially during programming, where long debugging sessions fuel my problem-solving drive. My curiosity and motivation ensure I remain persistent and orderly until a solution is found, whether resolving logic errors, cleaning data, or debugging unpredictable UI/CSS behaviour. My persistence and problem-solving skills are strong assets that I bring to any project or team.

Education

The University Of Auckland | Waipapa Taumata Rau

Auckland, New Zealand

Bachelor of Science conjoint Bachelor of Commerce in Computer Science and Finance Active member of university clubs including SESA, UOACS, WDCC, UAIC, UOADSC, and others.

Year 2

Katikati College

Achieved Merit Endorsement in NCEA Levels 1, 2, and 3.

Katikati, Bay Of Plenty 2023

Ranked first in school Level 3 Calculus and Digital Technology in 2023.

Earned an A+ in a Waikato UniStart Paper.

Projects

Clubs Webpage 2025

- Designed and developed a full-stack web application for managing school clubs and events.
 Allowing users to explore clubs, view upcoming events, and submit applications. With moderator capabilities
- Technologies Used: HTML, CSS, TypeScript, JavaScript, React, Next.js, Prisma, MySQL, Bootstrap, Vercel, GitHub.

Heart Risk Predictor 2025

- Designed and implemented a machine learning application to assess potential heart disease risk based on user-submitted survey data. Users receive a personalized, easy-to-understand analysis generated using GPT.
- Technologies Used: Python, Scikit-Learn, Pandas, Matplotlib, Imblearn, Tkinter, OpenAI GPT API.

Experience

Professional Sales Assistant

Wairau Valley, Auckland

Elite Fitness

2025 - Current

- Provided friendly and professional customer service by assisting with queries and ensuring a positive in-store experience.
- Resolved customer issues promptly and effectively, maintaining a high standard of professionalism.
- Assisted in assembling and delivering purchased products, ensuring high-quality and efficient service.

Experience

General Hand Katikati, Bay Of Plenty 2022 - 2025

Claymark Limited

- Assisted in the manufacturing and production of Claymark clear pine.
- Operated production machines and hand tools.
- Performed grading processes to assess product quality and meet company standards.
- Engaged in physical labor and teamwork to enhance production efficiency.

Additional

Programming Languages: Python, Java, JavaScript, TypeScript, SQL, HTML, CSS

Libraries & Frameworks: React, Next.js, Bootstrap, Tkinter

Databases & ORM: MySQL, Prisma

Deployment: GitHub, Vercel

Interests/Hobbies: I am passionate about software development and problem-solving, often building projects in my free time to explore this interest. I enjoy staying active through fitness and gym training, which supports my focus and discipline. Rugby has taught me teamwork, resilience, and strategic thinking—skills I carry into collaborative tech work. I am also fascinated by technology and AI, especially their potential to solve real-world problems. In my downtime, I enjoy outdoor activities like hiking, which help clear my mind.

References

References available on request

Portfolio: https://www.jacobtportfolio.com

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