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aayush bajaj
Computer Scientist | Mathematician | ML Engineer

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Education

Undergraduate **University of New South Wales** **2021-25**

- B. CompSci (AI), Math Minor



WAM: 68

- Relevant Coursework:

Design Patterns; Testing; OS; Databases; Concurrency; Data Structures; Algorithms; AI; ML; DL; CV

Graduate **Masters of Statistics** **Current**

- Relevant Coursework:

Single & Multi-variable Calculus; Linear Algebra; Discrete Mathematics; Probability; Statistics; Analysis

- Future Coursework:

Measure Theory; Stochastic Analysis; Probabilistic Graphical Models; Time Series; Regression Analysis

Technical Experience

Projects

- **Personal Website** (2022-Present). 🌐 An augmenting infrastructure; mathematically grounded, influenced by Networks. Syntax highlighting included. *Python, MathJaX, Emacs*
- **Bytelocker** (2025). Neovim Plugin for quick loss-less encryption *Lua*
- **Bookbot** (2024). 🌟 **GPT4o** with extra steps. Vectorises public-domain texts and responds to your questions about the book. *Typescript, PostGres*
- **10,000 Hours of Machine Learning** (2024-Present). My **monolithic repository** tackling the *drosophila* of Machine Learning *Jupyter*
- **Half-Dozen Github Static Sites: Shrine, Game of Life, Font2Splines** *Python, Javascript*
- **Mathematics: Typst** typeset mathematical summaries. *Matlab*
- **Kidney Segmentation (Kits19): 57th** on Leaderboards, **nnUNet architecture**. *HPC*

Work Experience

Classroom Tutor **XCD Education** **2020-21**

- Taught, marked and produced HSC English material *en masse*

Presenter **Connect Education** **2022**

- Made material for and presented “crash course” seminars to HSC students for Mathematics and English
- typeset in $\text{T}_{\text{E}}\text{X}$

Tutor **Private** **2019-23**

- Tutored 8 High School Students; brought them from C and D ranges to consistent B’s and occasional A’s
- Taught them to read, write and think.

Languages and Technologies

- C; Java; Python; SQL; JavaScript; Lisp; Go; R
- Linux (bash, vim, tmux, ssh); $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$; Azure; High-Performance Computing