Daniel Luscombe

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------Available------
Jan 2025 – Jun 2025

Seeking a position to utilise my technical, collaborative and innovative skills to solve real-world problems, and/or create experiences using new technology across industries.

EDUCATION

Northeastern University | Boston, MA　　　　　　　　　　　　　　　August 2023 - May 2027
Khoury College of Computer Science: Bachelor of Computer Science (BSCS).　　　　GPA: 3.8 / 4.0
- Coursework: Machine Learning Algorithms, Advanced Object-Oriented Design, AWS Cloud Computing, Functional Programming, Test Driven Development
- Honors: Dean's List

Tanglin Trust School | Singapore　　　　　　　　　　　　　　　　　August 2019 - June 2021
IB Diploma　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Grade: 41 / 45
- Coursework: Computer Science, Business Management, Music, Mathematics A&A, Chinese B, English A Lang & Lit

SKILLS

Programming Languages: Java, Python, JS, SQL, HTML, CSS
Libraries: JUnit, Swing, Pandas, NumPy, PyTorch, Matplotlib
Tools & Software: Git, Github, AWS, Logic Pro, Excel
Spoken Languages: English, Mandarin

AWARDS

Singapore Police Force　　　　　　　　　　　　Singapore
- "Best Group Leader Award"　　　　　　　　　　April 2023
- "Best Crew Award"　　　　　　　　　　　　　　March 2022
- "Marksman" on two separate shooting frames.

PROJECTS

Pixel Break | Audio Developer for Top-Down Shooter　　　　　　　　　　July 2024 – Present
- Compose adaptive soundscapes and interactive audio using Logic Pro's AU plugins for synthesis and mixing.
- Integrate audio elements into the game using the Unity audio management system FMOD and C#, ensuring seamless synchronisation with gameplay events.
- Collaborate with a game developer in creating a project timeline and vision for audio.

Titanic Survival | AI/ML Prediction algorithm in Python　　　　　　　　　　　July 2024
- Developed a machine learning pipeline to predict Titanic passenger survival rates, leveraging algorithms such as perceptron learning and linear regression.
- Employed NumPy and Pandas for data preprocessing and feature engineering, and visualized results using Matplotlib for analysis and determine areas for improvement.

XYZ University | AWS Web Application　　　　　　　　　　　　　　　　　June 2024
- Architected a highly scalable and loosely coupled student tracker webpage using AWS EC2 for virtual machine server hosting, S3 for storage, RDS for SQL database management, IAM for access rights and security groups for security.
- Developed, deployed, and monitored application performance within the AWS Cloud9 IDE, ensuring integration with AWS Cloud resources for high availability.

Marble Solitaire | Object Oriented Game in Java　　　　　　　　　　May 2024 – June 2024
- Engineered multiple variations of Solitaire (English, European, and Triangle) using the MVC design pattern with robust gameplay and abstracted logic using the factory pattern and Swing for graphical user interface development.
- Utilised JUnit for automated testing using to ensure functionality across different game states and test edge cases in logic.

EXPERIENCE

Singapore Police Force | Group Leader Sergeant 2　　　　**Singapore** | October 2021 – August 2023
- Led a patrol team of 4 officers, taking on police cases whilst ensuring strict compliance from all team members over police powers under the law.
- Demonstrated a talent for team leadership, fostering a cohesive and high-performing unit and placed into an intensive/selective leadership course.
- Managed and operated specialised systems in the operations room, ensuring seamless communication and coordination for critical law enforcement missions.
- Implemented rigorous training programs through prepared presentations, tests and deployments to enhance the skillset of over 100 new officers.

Tanglin Trust School | Music Tech / Teaching Assistant　　　　**Singapore** | January 2020 – July 2021
- Delivered lessons to Grade 10 GCSE students on music composition using digital audio workstations, guiding them in transforming creative ideas into polished projects by developing both technical and musical skills.
- Provided one-on-one support to students struggling with classroom concepts, utilising personalized teaching methods to ensure improved understanding.

Barclays | Intern　　　　　　　　　　　　　　　**Singapore** | March 2019 – March 2019
- Supported the finance team in planning and reporting tasks, utilising Microsoft Excel to assist in budget forecasting and cash management operations.
- Collaborated with fellow interns to create a comprehensive presentation covering key finance functions, including budgeting, cash flow, and the role of various finance positions.

INTERESTS

Generative AI | Machine Learning | Prediction Algorithms | Music Technology & Production | Investing | Running | Mixed Reality Games