Di Lu

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EDUCATION

University of Pennsylvania   **Philadelphia, PA**
School of Engineering and Applied Science   **SEP 2018 - MAY 2022**
- BSE in **Digital Media Design (DMD)** (Cumulative GPA: 3.43/4.00) - http://cg.cis.upenn.edu/dmd.html
    - DMD is an interdisciplinary Computer Science program focused on computer graphics, programming, mathematics, and design behind animation, games, VR, and interactive technologies.
- Relevant Coursework: Scalable & Cloud Computing (JS, Node.js, Apache Spark, NoSQL), Introduction to Computer Graphics (C/C++/OpenGL), Introduction to Computer Architecture (C/Assembly), Data Structures and Algorithms (Java), Mathematical Foundations of Computer Science (Discrete Math)

Hamden Hall Country Day School   **Hamden, CT**
- Weighted GPA: 4.4 (4.0 Scale) Cum Laude Society   **SEP 2014 - JUN 2018**

WORK EXPERIENCE

Front-End iOS Developer   **Remote**
Swapper   **JULY 2020 - Present**
- Programmed mobile app for student-led startup called Swapper that manages sports stadium ticket-booking and reselling in real-time value using React Native. Designed UI/UX and app layout.
- Visualized stadium seating through API, implemented QR code scanner, login/logout functions, and buying/selling tickets.
- Recruited dev team members through Facebook, communicating details about frontend and backend development to project leader and potential new recruits; managed communication between team leaders and devs.

Tutor, Mathematical Foundations of Computer Science (Discrete Math), Calculus   **Philadelphia, PA**
UPenn Tutoring Center   **FEB 2020 - Present**
- Discrete: Group tutoring to students who are taking discrete math, providing study tools and leading through homework and lectures, running exam prep review sessions with multiple students.
- Mentored tutees, providing access to campus resources and individual conversations about dealing with stress.
- Topics covered: proofs, counting, probability/expectation, graph theory

LEADERSHIP & PROJECT EXPERIENCE

UPGRADE (UPenn Game Research and Development Environment Club)
- Marketing chair, responsible for sending weekly updates for club members and organizing club socials
- Project leader/pixel artist of College Simulation video game, built using Unity 2D, scripts from scratch in C#
- Created demo of the game using Unity isometric tilemap workflow (rule tiles/random tiles), Universal RP for 2D lighting, and original artwork

Mini-Minecraft (CIS560) (In progress, end of semester project)
- Written in C++, implemented an efficient chunk-based terrain rendering method for minecraft blocks;
- Wrote fragment and vertex shaders in OpenGL to apply textures from a file to surface of blocks, as well as time-based shaders to animate water and lava, creating Meshes using VBO. (In progress)
- Additional planned features: Crafting System, Day/Night cycle, shadow-mapping

Mini-Facebook (NETS212) (In progress, end of semester project)

ACTIVITIES & VOLUNTEER

AMC SIGGRAPH Conference Student Volunteer (August 2020)
National Student Leadership Conference (Game Design) (2016)
- Designed a unity-based video game within 10 days in a team of three students

TECHNICAL SKILLS AND INTERESTS

Languages (fluent): English, Mandarin   **IDE:** QT Creator, Eclipse, VSCode,
Programming: Java, C/C++, React Native, JavaScript, NoSQL   **Music:** Classic vocal (4+ years), flute (9+ years)
Creative Programs: Adobe Creative Suite, Unity 3D, Autodesk Maya