Justin Reed

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Education

University of Pennsylvania, MSE in Computer Science Jan 2024 – May 2026

- GPA: 3.43
- **Coursework:** Operating Systems, Networked Systems, Databases, Applied Machine Learning, Probability, Convex Optimization, Computer Graphics, Computer Organization and Design

Haverford College, BS in Computer Science, Minor in Chinese and Economics Sept 2020 – May 2024

- GPA: 3.73
- **Coursework:** Data Structures and Algorithms, Concurrency, Speech Synthesis and Recognition, Data Science

Experience

Biometrics Intern (Statistical Programming), Corcept – Redwood City, CA June 2025 – Present

- Ensure consistency of clinical study data
- Optimize statistical programming workflows through R scripting

Incubator Grantee, Haverford Innovations Program – Haverford, PA May 2024 – Aug 2024

- Ideated, developed, tested, and presented event and friend-finder app "BuddyUp"
- Implemented real-time chat and user authentication with backend database
- Awarded $14,000 grant from Haverford and $5,500 Grant from Pennovations

Teaching Assistant, Microecon (Coding); Theory of Computation– Haverford, PA Jan 2023 – May 2024

- Led weekly sessions to troubleshoot code, explain algorithms, and mentor students
- Collaborated on course design and presented during weekly recitation

Projects

UNIX-Like Operating System Simulation (Course Project – Operating Systems) Nov 2024 - Dec 2024

- Independently designed and implemented a FAT-style file system in C
- Integrated design with team's components, including priority scheduler and shell
- Tools used: C, Git

Chord Application and LS Routing Protocol (Course Project - Networked Systems) Nov 2024 - Dec 2024

- Implemented Chord: distributed hash table with efficient key-based routing
- Developed and tested LS routing protocol for dynamic shortest-path computation
- Tools used: C++, Ns-3, Git

Minecraft in C++ (Course Project - Computer Graphics) Nov 2024 - Dec 2024

- Designed 3D game with efficient rendering, dynamic terrain features, interactive GUI
- Tools used: C++, GLSL, Git

Neural Network for Chinese Pinyin to Hanzi Translation (Course Project - ML) Apr 2024 - May 2024

- Designed Seq-to-Seq NN that translates sentences from >1522 possible pinyin to >100k possible characters
- Tools Used: Python, Pytorch

Skills

Software Engineering: C++, C, Java, NS-3, OpenGL, JavaScript, Node.js
Data Science: Python, R, PyTorch, Pandas, SQL, MongoDB, Neo4j
Tools: Git, Docker, AWS, Datagrip, Linux
Other: Mandarin Chinese (Proficient), Photoshop, Premiere Pro