

Peizhi Li

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EDUCATION

University of Richmond (UR), Richmond, VA

Bachelor of Science in Computer Science and Psychology; Minor in Mathematics

Aug 2017 - May 2021

GPA: 3.9 (Top 10%) CS Major GPA: 3.98

Relevant Courses: Data Structures, Discrete Math, Software System Development, Computer Organization, Algorithms, Linear Algebra, Probability, Cognitive Science, Graphics, Database, Motion Planning in Robotics, NLP, Game Dev

PUBLICATIONS

Crawford, L. E., Knouse, L. E., Kent, M., Vavra, D., Harding, O., LeServe, D., Fox, N., Hu, X., Li, P., Glory, C., & Lambert, K. G. (2020). Enriched environment exposure accelerates rodent driving skills. *Behavioural Brain Research*, 378, Article 112309. Jan 2020.

RESEARCH EXPERIENCE

Research Fellow, Tech Future at Tencent, Shenzhen, Guangdong

May 2021 - May 2022

- Simulated AI emotional reactions and decision-making based on emotional memories and character personalities
- Implemented Emotion metrics for AI agents in [Metaverse](#), an Unreal research project of Tech Future

Research Lab Assistant, Spider Robotics Research Lab, UR, Richmond, VA

Oct 2019 - March 2021

- In collaboration with Dr. Denny, research was conducted on various approaches to build a topology representation
- Implemented a new deconstruction for 2D environments and explored different Morse functions of Reeb Graph
- Analyzed the impact of a novel topology representation on the performance of Dynamic Region-based RRT
- Conducted automated robot testing to enhance the learning experience in *Introduction to Computer Science* lab
- Designed and wrote unit testing with an interactive user interface for GoPiGo3 using Python

Research Fellow, Spider Robotics Research Lab, UR, Richmond, VA

May 2019 - July 2019

- Developed a realistic model of Active Threat situations by integrating a multi-agent system with a simulator
- Coded collaboratively in a C++ environment using Agile methodologies
- Designed and implemented 7 realistic artificial intelligence behaviors for the actors in various threat scenarios
- Provided a preparational tool to assist law enforcement and universities preparing for active threats
- Presented the poster: *Plan A: Stopping an Active Shooter Simulation of an Active Threat Scenario Paige Li and Victor Chen, mentored by Dr. Jory Denny*

Research Fellow, Department of Psychology, UR, Richmond, VA

May 2018 - May 2019

- Trained lab rats in controlling a motor car and assessed their learning flexibility with Dr. Crawford
- Designed the rat car using Arduino boards and adapted a Robot Car Kit to a circuit-controlled motor car
- Employed operant conditioning to teach 6 female rats how to navigate a car to a specific destination
- Presented a poster titled “*Teaching Rats to Drive: A Novel Method for Spatial Navigation Research in Rats*” at the UR Undergraduate Research Symposium
- Exhibited the poster at 31st Annual Convention of the Association for Psychological Science in Washington, DC

PROFESSIONAL EXPERIENCE

Game Developer, PUBG Mobile Dev Group, Tencent, Shenzhen

July 2021 - July 2023

- Contributed immensely to PUBG Mobile, a globally renowned multiplayer battle royale game with millions of active players, impacting gameplay dynamics across various aspects including UI, character skills, and animations
- Integrated real-time voice communication and speech-to-text functionality, fostering seamless player interaction
- Utilized C++, slua, and Unreal Engine to create, optimize, and maintain high performance, stable code
- Leveraged Wwise audio to design dynamic sound systems, enhancing the immersive in-game experience
- Designed and implemented an online monitoring system, significantly reducing bugs and enhancing stability

Teaching Assistant, Department of Computer Science, UR, Richmond, VA Sep 2020 - Feb 2021

- Provided 'drop-in' tutoring session for students in Intro to CS, Algorithms, C++ Simulations, and Discrete Math
- Facilitated students learning ability by cooperating with faculty and Academic Skill Center

Software Developer Co-op (Remote), ShiDaiChuanFu, Beijing Sep 2020 - Dec 2020

- Developed an app to facilitate the communication within ACG (Anime, Comics, Games) community to better talk through text, photos, voice, and videos
- Employed Docker, MongoDB, and TypeScript to architect the backend infrastructure and user interfaces

Software Developer Intern, Sonos Inc., Boston, MA July 2020 - Aug 2020

- Added new features of voice services settings for iOS/Android/Mac App controllers
- Coordinated with the UX, Development, and Quality Assurance teams and worked in a C++ environment and GO
- Reported usage data from player code to build internal libraries for better troubleshooting through VM and telnet

PROJECT EXPERIENCE

Blender TPS Tool Oct 2023 - present

- Provide convenience for level artists to use the same camera view as in UE projects to test scenes

Single Image 3D Reconstruction July 2023

- Explored and implemented a single-view image to fast and high-resolution 3D reconstruction pipeline, building upon an open-source baseline, called stable-dreamfusion

C++ Render July 2023

- Implemented a ray-tracer, showcasing fundamental ray-tracing techniques such as the basic ray-tracing algorithm, Phong shading, shadow rays, and recursive reflection

Fuutaku Oct 2021

- Created a two-player online decryption game in which the protagonists utilize color elimination and size alteration abilities to reach the destination

LEADERSHIP EXPERIENCE

Vice President, Association of Computing Machinery (ACM), UR, Richmond, VA Aug 2020 - May 2021

- Compiled latest information from the tech industry and curated a monthly newsletter for all CS students
- Orchestrated events including tech talks, alumni discussion, and skills workshops to build a supportive community

VP of Technology, Chinese Scholars and Students Organization, UR, Richmond, VA Sep 2019 - Apr 2020

- Revamped the existing website in a Node.js environment using React Library, ensuring user friendliness

Residence Assistant, Richmond College Dean's Office, Richmond, VA Aug 2019 - May 2020

- Supervised 35-40 residents and organized programs with campus resources to foster an inclusive community

Choreo Team Leader, BlockCrew, Richmond, VA May 2019 - May 2020

- Planned and executed large-scale events including performances at Women's Basketball, Celebration of Dance, Spring Showcase (one of the dance videos on billibili.com reached 40k views)

HONORS & AWARDS

Outstanding Contributor of Tencent Dec 2022

Outstanding Contributor of Tech Future Aug 2022

Active Member of Omicron Delta Kappa & Phi Beta Delta April 2020 - May 2021

International Collegiate Programming Competition for the Mid-Atlantic Region (Top 30%) Dec 2019

University of Richmond Summer Research Fellowship May 2018 & May 2019

SKILLS

Languages: *Proficient:* C++, Python, Java, R, Lua/Lua *Working Knowledge:* HTML/CSS/JavaScript, TypeScript

Tools: Linux, Latex, Node.js, Neural Networks, AI, Finite Automata, Arduino, Git, Unreal Engine, Wwise Audio, Online Monitoring System Development, Debugging, Optimization, Real-time voice system, Speech-to-Text, Blender, Houdini

Gameplay Mechanics: Gameplay, UI/UX design, Throwables, Character Attributes, Consumables, Character Skills