

JUNGTAEK HONG

<https://github.com/Myshro>

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EDUCATION

University of Virginia, Charlottesville, VA

Bachelor of Arts in Computer Science

August 2023 - Present

- Cumulative GPA: 3.847
- Coursework: Computer Systems and Organization, Data Structures and Algorithm, Discrete Mathematics, Multivariable Calculus, Linear Algebra, Software Development Essentials
- Technical: Git, Python, Java, Unity, C#, JavaScript / Typescript, React, AWS, Svelte, SQL, Blender

RELATED EXPERIENCE

Mobile Developer, Charlottesville, VA

UVA Department of Civil and Environmental Engineering

September 2024 - Present

- Developed an interactive AR app in Unity enabling class of 80+ engineering students to visualize real-time structural analysis of building components under diverse load conditions
- Redesigned and implemented UI elements and side menus in Figma
- Creating a process to send user data to a PHD student Aya Yehia to be analyzed in a pilot study of ~20 participants to gather data on student and AR app interactions

Research Assistant, Charlottesville, VA

UVA Department of Computer Science

August 2024 - Present

- Coauthored "Things2Reality" paper with PHD student Erzhen Hu, accepted to the CHI 2025 conference on human-computer interaction
- Conducted a user study with 12 participants for same paper, collecting data from 48 questionnaires to analyze interactions between users in a Unity VR environment; Analyzed VR user interactions with the Segment Anything Model (SAM) and Large Multi-View Gaussian Model (LGM), enabling users to generate interactive 3D models from segmented images
- Provisioned a Flask server to facilitate communication between Unity, AI models, and user voice chat

Teaching Assistant, Charlottesville, VA

UVA Department of Computer Science & Japanese Department

August 2024 - Present

- Led weekly lab sessions for 60+ undergraduates and hosted weekly personal office hours for 100+ students to teach low level computing (C, Assembly)
- Configured Gradescope's AI-assisted tools for a class of 800+ CS students; Reduced grading time by 80% and helped author ~4 final exam questions
- Tutored 4 Japanese college students to achieve TOEIC scores above 900/990; Facilitated career advancements through high-level English proficiency

Research Assistant, Fairfax, VA

UVA Department of Physics

May 2024 - August 2024

- Designed and published an educational Unity game demonstrating gravitational wave concepts with a 4 person team
- Constructed advanced world generation logic, simple molecule simulators, and aim system, boosting player engagement by 40%
- Orchestrated regular biweekly team meetings and maintained effective communication channels through Jira

Junior Programmer, Bethesda, MD

Starlight Vintage Studios

May 2023 - June 2023

- Developed NPC and voice logic in Unity for the VR game "Give the People What They Want", increasing player engagement by 25%
- Led live demos at marketing booth; Engaged 100+ visitors and gathered valuable player feedback to inform design adjustments
- Resolved ~15 bugs identified during playtesting and updated the final build on Steam and the Meta Store
- Designed a tutorial with visual effects and refined mechanics, accelerating user familiarity with VR by 30%

PROJECTS

Computer and Network Security Club at UVA, Typescript, React, Tailwind

Frontend Developer

August 2023 - Present

- Developing a webpage hypervisor using Next.js to allow provision of virtual machines with club server room infrastructure for around ~20 members
- Designing process to convert JSON into Terraform HCL and Ansible YAML for seamless infrastructure management
- Utilizing Grafana to visualize and monitor virtual machine health metrics for ~20 machines; Integrated with Prometheus for real-time logging and performance tracking

HACK Language Assembler, Python

Developer

February 2023 - March 2023

- Programmed assembler capable of converting 8 bit assembly code for the HACK language into machine code
- Implemented virtual ALU, CPU, RAM, building and using 16 fundamental logic gates to build a functional mini-computer

ACTIVITIES

Immersive @ UVA (Club), Charlottesville, VA

Vice President

August 2024 - Present

- Hosted ~4 demos for students to try out new VR technologies such as haptic vests, full body tracking, and the Apple Vision Pro
- Fostered a global partnership with Toyota Technological Institute's VR club, collaborating on co-publishing a VR art magazine
- Coordinated monthly cultural exchange events for ~10 members, translating between Japanese and English to bridge communication and strengthen global ties

Comics and Animation International Exploration (Club), Charlottesville, VA

Treasurer

August 2024 - Present

- Managed over \$5,000 of club budget for events, conventions, hotels, club merchandise, and prints of club published magazines for ~40 regular members
- Developed and hosted a Discord bot using C# and the Discord.Net library, enabling user registration, item tracking, and allowing members to redeem points to win from a prize pool worth over \$400
- Devised and hosted a static website to boost club publicity, increasing membership by 20% through enhanced online visibility
- Applied for ~\$3,000 in grants for funding; Design standardized Excel sheets for club budgeting