

# Andrew Hong

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## EDUCATION

### University of Virginia

Charlottesville, VA

*Bachelor of Arts in Computer Science, Minor in Data Science; GPA: 3.8*

*Aug. 2023 – May 2027*

- Relevant Coursework: Data Structures and Algorithms, Artificial Intelligence, Natural Language Processing, Computer Architecture, Cloud Computing, Advanced Software Development, Software Testing

## EXPERIENCE

### Mobile App Developer

Sep. 2024 – Present

*Struct-AR*

*Charlottesville, VA*

- Led 3-person team to develop and publish Struct-AR, an educational iOS/Android AR application, deployed in UVA structural engineering courses to help students learn stress, strain, and material property concepts 25% faster
- Set up Unity Cloud analytics tracking 100+ individual student interactions, using data insights to drive future development

### Software Research Assistant

Sep. 2023 – May 2025

*Ultimate Interface Lab*

*Charlottesville, VA*

- Built full-stack web app for Google-funded PhD research using React, Express, Three.js for avatars, and Gemini API within an Agile team, enabling simulation of 6 simultaneous AI agent conversations
- Co-authored CHI 2025 paper Things2Reality, designing and executing user study with 12 participants and 48 questionnaires analyzing VR interactions with the Segment Anything Model and Large Multi-View Gaussian Model for AI-generated VR Unity environments

### Software Research Assistant

May 2024 – Aug. 2024

*UVA Department of Physics*

*Remote*

- Developed educational Unity game on gravitational wave physics with a 4-person research team, published for public education outreach
- Engineered world generation systems, molecular physics simulators, and precision targeting mechanics in C#, boosting player engagement by 35%

### Software Development Intern

May 2023 – June 2023

*Starlight Vintage Studios*

*Bethesda, MD*

- Developed features and NPC logic for Give the People What They Want, a VR game on Steam and Meta Store
- Implemented core gameplay mechanics in C#, ranging from finite state logic, animation systems, projectile physics, collision handling, and implementing 20+ unique particle VFX
- Resolved 15+ gameplay issues identified during playtesting and cut down memory usage and load times by 30%

## PROJECTS

### Resource Conflict Prediction | *ArcGIS, Remote Sensing, Python*

Aug. 2025 – Present

- Working directly with the National Geospatial-Intelligence Agency (NGA) to develop predictive models and mitigation strategies of conflict using ArcGIS and remote sensing data to monitor water resources in the Middle East and Asia/Pacific regions

### Sawada Brewery Microsite | *Next.js, React, Tailwind*

Aug. 2025 – Sep. 2025

- Redesigned and published Sawada Brewery's website, as part of work for the CEO and Aichi Prefectural Government, to attract inbound tourists for the prefecture and increase sake sales of the company by 10%

### BoardShare | *Django, Docker, AWS, PostgreSQL, Bootstrap, Heroku*

Jan. 2025 – May 2025

- Developed fullstack Django app for a university boardgame club, enabling 20+ members to catalog, rent, and manage board games; implemented responsive Bootstrap UI and AWS S3 integration via Boto3 for image storage
- Set up CI/CD pipelines with GitHub Actions for automated testing and deployment to Heroku

## TECHNICAL SKILLS

**Languages:** Java, Python, HTML/CSS, JavaScript/TypeScript, C#, SQL, Go, PHP, C/C++, R

**Frameworks:** ReactJS, AngularJS, Next.js, ASP.Net, Django, Jupyter Notebook, JQuery, PyTorch, SpringBoot, JUnit

**Developer Tools:** Git, Docker, AWS, VS Code, Figma, IntelliJ, Unity, Bash / Linux

**Certificates:** Japanese JLPT N1