Christopher Bannon

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EXPERIENCE

Amazon (AWS), *Software Engineer* <div align="right">Oct 2024 – Present</div>

- Lead team's development of a new feature, coordinating across **5** sister teams and **12+** engineers through launch; loadtesting **6+** APIs to to ensure high availability and low latency
- Refactored service, slashing time to alarm by **80%**, accelerating triage and reducing customer impact
- Designed a real-time, scalable analytics feature, using lambda and DDB to ensure high availability and low latency
- Optimized CI/CD infrastructure, cutting end-to-end deploy time by **35%** and improving pipeline health
- Lead our team's adoption of new infrastructure visualization tools, increasing developer productivity by over **10%**
- Mentored **2** new-hires and **2** interns on service architecture and code quality, cutting onboarding time by **25%**

Make Lab @ KAIST School of Computing, *HCI Researcher* <div align="right">Aug 2024 – Oct 2024</div>

- **Wrote ACM CHI 2025**: "Exploring and Creating Camera Movements with Spatial Reference in Augmented Reality"
- Built an AR prototyping tool for scene composition, integrating a custom Blender plug-in to streamline camera-layout iteration; validated the workflow in **9** user studies with 3D designers & animators.
- Built a media server and ML pipeline in Go, using WebRTC and media pipes, to strip backgrounds from user video feed in **real-time** for for VR/XR experiences; up to **40+** fps

Hybrid Ecologies Lab @ UC Berkeley, *HCI Researcher* <div align="right">Aug 2023 – Aug 2024</div>

- **Authored ACM C&C 2024** "A Toolkit for Crafting Simple Sonic Interfaces in Education"
- Programmed a **distributed BLE communication protocol** for ESP32 based sensor nodes and launched a dashboard (Next.js + Firebase) to enable realtime prototyping during user studies with **20+** participants

FavorX, *Software Engineer Intern* <div align="right">May 2023 – Aug 2023</div>

- Designed **10+ user-centric** application screens and user flows in Figma and deployed solutions in React Native
- Lead development of the QR Code 'token transfer' user experience, increasing peer-to-peer transactions by **15%**

SKILLS

Languages: Java, Python, C/C++, Go, Swift, Rust, JavaScript, Typescript, HTML/CSS, SQL
Tools: React, Next.js, FastAPI, Redux, MongoDB, Firebase, NumPy, PyTorch, seaborn, pandas

PROJECTS

Minecraft Server Admin Plugins & Tools <div align="right">*Java, Rust, ElasticSearch*</div>

- Created **3** custom Java plugins to communicate realtime server metrics, player position, & logs to a text-based GUI, enabling server performance and player conduct monitoring for up to **20+** concurrent players

Better Connections 🔗 <div align="right">*React, Python, MongoDB*</div>

- Built an Progressive Web-App of the NYT Connections game featuring Framer Motion animations, a rate-limited FastAPI/GPT-4o mini hint API; utilized GitHub actions to asynchronously update the DB to keep the app up to date

EDUCATION

University of California, Berkeley, *B.A. in Computer Science* <div align="right">Aug 2020 – Dec 2024</div>

- **GPA: 3.75** | Outstanding Student Instructor Award (Top 10% of TAs), Certificate of Design Innovation
- **Coursework:** UI/UX Design, Data Structures, Algorithms, Computer Architecture, OS, Data Science, AI, ML