

**Paul Peavyhouse**

Kirkland, WA

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2025/07/31

**Attn: Hiring Manager**

Lowe's Innovation Labs

11332 NE 122nd Way #150

Kirkland, WA 98034

Re: <https://talent.lowes.com/us/en/job/JR-02130302/Lead-Software-Engineer-Innovation>

Dear Hiring Manager,

I am excited to apply for the **Lead Software Engineer – Innovation** position at Lowe's Innovation Labs in Kirkland. With over 20 years of experience architecting, developing, and delivering complex enterprise and mobile software solutions, I bring the technical leadership, cross-functional problem-solving, and SDLC expertise that directly align with this role.

At Promethean/Mynd.ai, I served as **Staff Android Software Developer and Tech Lead**, driving the architecture and delivery of our flagship AOSP-based Interactive Flat Panel line from proof of concept to mass production, ultimately shipping over **500,000** units. In this role, I:

- **Led development of integrated enterprise solutions** spanning firmware, Android services, audio/video pipelines, telemetry, OTA, and MDM/EMM features.
- **Translated business and functional requirements into stable, scalable designs** while mentoring engineers and authoring architecture standards for 30+ applications.
- **Drove CI/CD and operational excellence**, consolidating 100+ repositories and 100+ build jobs to GitLab CI, improving release velocity and reducing bottlenecks.

In addition, I maintain **DistroAV (OBS-NDI)**, an open-source streaming plugin with nearly **6M downloads**, where I own the full SDLC from architecture to community mentorship, reflecting my ability to resolve complex cross-functional problems and drive adoption of engineering best practices.

The opportunity to contribute to Lowe's, a Fortune 50 leader transforming retail through cutting-edge technology, aligns with my passion for **innovating across portfolios, simplifying architectures, and mentoring teams**. I am especially drawn to your emphasis on **engineering and operational excellence, collaborative innovation, and resolving complex, cross-application challenges**, all of which have been hallmarks of my career.

I would welcome the opportunity to bring my **real-time systems, cloud-integrated solutions, and SDLC leadership experience** to Lowe's Innovation Labs and help deliver high-impact, scalable solutions.

Thank you for considering my application. I look forward to the possibility of discussing how my expertise can support Lowe's mission to innovate and lead in home improvement technology.

Sincerely,

**Paul Peavyhouse**

Attachment: Résumé

**Paul Peavyhouse** - Lead Software Engineer, Innovation

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## SUMMARY

Lead Software Engineer with 20+ years delivering **complex, integrated enterprise and mobile software solutions**. Proven ability to **translate business requirements and functional specifications into logical program designs**, lead implementation and maintenance across **various computing environments**, and serve as a **technical expert** for cross-functional teams. Drives **scalable, maintainable architectures, CI/CD, operational excellence**, and **mentorship**. Deep experience in Android/AOSP, real-time audio/video, IoT/BLE, cloud (AWS), telemetry, and large-scale release engineering.

## CORE STRENGTHS ALIGNED TO THE ROLE

- **Architecture & SDLC Leadership:** Lead design of **flexible, scalable, maintainable** systems that meet **architectural standards**; communicate architectural changes and **coach engineers** to apply them.
- **From Requirements to Delivery:** Convert **business requirements/specs** into program designs; plan/estimate, **execute with limited guidance**, and deliver **stable application systems** and **integrated solutions**.
- **Cross-Functional Problem Solving:** Resolve **complex, cross-portfolio** problems; ensure solutions are **extensible**; **simplify, optimize**, and **remove bottlenecks**.
- **Quality & Testing:** Champion **engineering, test, and operational excellence**; support **systems integration testing (SIT)** and **user acceptance testing (UAT)** with appropriate depth of coverage.
- **Standards & Education:** Maintain knowledge of **advancing technologies**; **educate others** on architectural standards, methodologies, policies, and controls.
- **CI/CD & DevOps:** Design and operate CI/CD for large repo estates (GitLab CI, Bamboo, Jenkins, GitHub); automate builds, tests, releases, and telemetry.

## SELECTED ACCOMPLISHMENTS

- **Scale & Delivery:** Took a multi-year hardware+software program from early validation to **mass production** with **500K+ devices** while maintaining **stable application systems** and high field reliability; Maintain a **~6M download** open-source streaming plugin used by **hundreds of thousands** of creators.
- **Portfolio-Level Impact:** Consolidated CI/CD across **100+ repos / 100+ build jobs**, reducing build friction and **removing bottlenecks** across teams.
- **Customer Outcomes:** Supported **thousands of school districts** (K-12) with large fleet deployments; provided **SIT/UAT guidance** and **resolved escalations** rapidly.
- **Standards & Teaching:** Authored developer guidelines (crash/telemetry, logging, release), and **educated engineers** on advancing tech (AOSP 11 migration, audio/video, data residency).

## TOOLS & TECHNOLOGIES

- **Languages:** Kotlin/Java/Compose, Swift, Python, C/C++, C#/ .NET, JavaScript/TypeScript, Qt
- **Mobile & Embedded:** Android/AOSP/NDK, Wear/Glass, BLE (LE/A2DP/SCO), MDM/EMM, iOS
- **Cloud & Data:** AWS, Firebase/Crashlytics, Mixpanel
- **RTC/Media:** WebRTC, SIP/VoIP, AEC/AGC/NS, codecs (AAC/FLAC/G711/H.264/Opus/PCM)
- **Networking & Security:** TCP/UDP, Wireshark (custom dissectors), TLS/X.509, HMAC/ECC
- **CI/CD & Quality:** GitLab CI, Jenkins, Bamboo, Gradle/Maven/Ant, GitHub; **code coverage** (JaCoCo/Sonar), test automation (JUnit/Mockito/Robotium/Robolectric)
- **Collaboration:** Jira/Confluence, GitHub/GitLab/Bitbucket; design reviews, architecture docs

## PROFESSIONAL EXPERIENCE

### Mynd.ai / Promethean - Seattle, WA

*Staff Android Software Developer; ActivPanel 9 (AP9) Tech Lead | 2022–2024*

*Senior Android Developer | 2020–2022*

- **Led development of integrated enterprise application solutions** for an AOSP-based 65"/75"/86" Interactive Flat Panel Display line, ensuring designs were **flexible, scalable, and maintainable** and aligned to **architectural standards**.
- **Translated business/functional requirements** from product, field, and enterprise customers into logical designs and implementation plans; **participated in planning and priority estimates**; advised engineers across multiple teams.
- **Delivered stable application systems** across device firmware, Android apps/services, audio/video pipelines (AEC/AGC/NS; HDMI/DP/EDID/CEC/ARC/HDCP/DRM), telemetry (Mixpanel), OTA, and enterprise features (MDM/EMM).
- **Shipped all AP9 versions** from POC/EVT/DVT/PVT/MP through releases **1.0 (May 2022) → 2.3 (Nov 2024)**; **500K+ panels** in market.
- **Mentored and advised** developers across 30+ apps; authored architecture docs and established **company/industry methodology** alignment, **policies, standards, and controls** (crash standards, logging, quality gates).
- **SIT/UAT leadership**: Stood up **"PromLab"** (20+ test panels) with reservation/checkout; supported **SIT** and **UAT** for large school-district deployments; provided **escalation resolution** and field triage.
- **CI/CD & Operational excellence**: Migrated **100+ repos** Bitbucket→GitLab and **100+ build jobs** Bamboo→GitLab CI; created a **Firestore Crashlytics wrapper** used by 30+ apps for consistent telemetry; automated auditing of **2M+ LoC** in AOSP migration (Android 9→11).
- **Data/Compliance**: Designed **data regionalization** architecture spanning products to simplify compliance and performance.

### Pebblebee - Issaquah, WA

*Senior Mobile/Android Developer; Tech Lead | 2015–2020*

- **Architected and delivered** Android/iOS apps and cloud-integrated **IoT/BLE tracking** solutions (Crowd GPS, background scanning under Samsung Knox/EMM).
- **Developed integrated business systems** with AWS (DynamoDB/NoSQL), Realm, Firestore/Crashlytics; **defined technical requirements** and performed **high-level design** for complex features across mobile, firmware, and services.
- Drove **operational excellence** with crash/telemetry standards, release automation, and **UAT** pilots.

### Twisted Pair (Motorola Solutions) - Seattle, WA

*Staff/Lead/Senior Mobile Engineer; earlier SDET | 2009–2014*

- **Led mobile development** (Android, iOS, BlackBerry, WinCE/Phone, Google Glass/Wear) for **WAVE/MOTOTRBO Push-to-Talk (PoP)**, an enterprise-grade cross-platform communications suite.
- **Cross-functional architecture & security**: Real-time audio (AMR, G.711, Opus, Speex), networking, and **cryptography** (key exchange, ECC, HMAC, X.509, TLS).
- **SIT/UAT**: Onsite enterprise rollouts (MGM Resorts; Trimble; US Army Nett Warrior); **resolved escalated issues** and closed feedback loops **from customers to engineering**.
- **Engineering excellence**: Established test automation, coverage (JaCoCo/Sonar), CI (Jenkins/Maven/Gradle), and coding standards.

### Google - Seattle, WA

*SDET (GOOG-411 & Google Voice VoIP backend; Google Pack/Chrome Omaha) | 2005–2009*

## Microsoft - Redmond, WA

*SDET (RTC/Distributed Meetings/Exchange/NetDocs/Office) | 1998–2005*

## Night55 - Bozeman, MT

*Co-Founder/Co-Owner, Software Developer, Software Tester | 1997-1999*

- Original Creator of Vibe MP3 player: <http://swooby.com/night55/www/vibe2/>
- Co-Creator of Sonique MP3 player: <http://swooby.com/night55/www/sonique/>
- Acquired by MediaScience in 1998; Acquired by Lycos in 1999 for \$38.8M

## OPEN SOURCE & INNOVATION

### DistroAV (OBS-NDI) - Lead Maintainer | 2023–Present

- Steward of the widely used OBS Studio NDI plugin (~**6M downloads**; **400+ forks**; **3.8K+ stars**).
- **Own end-to-end SDLC**: roadmap, design, code reviews, CI, releases, and incident response.
- Mentor contributors; document **architecture changes** and **educate** the community on standards.

### Recent R&D (AI/Realtime/WebRTC)

- Android **Push-to-Talk AI Assistant** using OpenAI Realtime over WebRTC (Kotlin + Wear OS).
- Dart/Flutter **langchain\_dart** WebRTC integration; comparative testing of WebSocket vs WebRTC realtime APIs.  
(Code links available on request.)

## EDUCATION

- **Computer Science** - Montana State University (Bozeman, MT), Virginia Tech (Blacksburg, VA)

## PATENTS & PUBLICATIONS

- **Patents:**
  - TIP-RING-RING-SLEEVE Push-to-Talk Systems (WO2013116741)
  - Pulsed Input Push-to-Talk Systems (WO2013154722)
- **Publications:**
  - *CarPC Hacks*, O'Reilly (Hack 65: Real-Time Traffic Data)
  - *Using AJAX to Enable Client RPC Requests* (Google App Engine)

## ADDITIONAL

U.S. Citizen. Local to **Kirkland, WA** (Innovation Labs HQ). Comfortable on-site; able to travel for **SIT/UAT** and field support.