Chris Harman

Senior Software Engineer

chrisharman051@gmail.com 612-432-7195

Software Engineer with over 8 years of diverse experience spanning medical device software to vectorized document search. Proven ability to impact at the team level and beyond through a focus on advancing best practices, eliminating team roadblocks, and mentoring. Contributor across entire project lifecycles, emphasizing delivering clean, human-readable code.

WORK EXPERIENCE

Senior Software Engineer — July 2022 – Present

ZAIS Group

CLO Data Pipeline – Airflow – Data Analytics Team

- Spearheaded creation of robust and configurable data pipeline, providing insights into $4.6B in loan assets through the aggregation of data from multiple vendors and calculation of additional loan-level metrics

CLO Financial Model – AWS – Software Consultant

- Ported financial model from a complex desktop setup to the cloud adding horizontal scaling, leading to a 250x speed increase, replacing overnight runs with results after 2 minutes

Embedded Search – Python – Data Analytics Team

- Creating document embedding and search system giving analysts visibility into lengthy financial disclosures

Senior Software Engineer - Multiple Positions — January 2015 – June 2022

Medtronic

Activa – Android – Deep Brain Stimulation Team

- Implemented the therapy control software for deep brain stimulation implants, successfully hitting an external FDA deadline for release
- Re-architected application telemetry layers to improve system error handling and increase development speed for the software team
- Designed and implemented a standalone dependency injection system to eliminate third-party compliance concerns around stability and security
- Steered application architecture towards a more testable structure, ensuring the project could hit test coverage requirements

Percept – Android – Deep Brain Stimulation Team

- Developed the software system for controlling deep brain stimulation therapy on a new hardware platform, contributing to multiple double-digit quarterly increases in business unit revenue
- Led the software team responsible for therapy control and wrote the core features of stimulation control for the application
- Designed the application architecture from the user interaction level down to the device telemetry formation layer
- Implemented key aspects of the event system and telemetry modules
- Led onshore/offshore developers by teaching system behavior, conducting code reviews, and clarifying requirements
- Collaborated with end users (neurologists/nurses) on UI design and workflows

Symptom Tracker – Android/Spring – Digital Health Team

- Constructed core symptom-tracking and multidirectional mobile data-syncing functionality for a new patient platform
- Introduced and demonstrated viability of a new language (Kotlin) for the department, leading to department-wide adoption and usage, benefitting multiple multi-million dollar projects
- Authored department-wide coding standards to improve patient safety and enhance code clarity

- Taught Kotlin to peers across teams by leading group sessions
- Designed REST API for mobile data sync, trialing protocol setup
- Coordinated the efforts of onshore developers with offshore test teams

Prototype – Android – Deep Brain Stimulation Team

- Designed and implemented the deep brain stimulation clinician application portion of a multi-system prototype project, proved out viability representing $50M+ in savings
- Coordinated performance characterization efforts across multiple teams

EDUCATION

University of Minnesota
B.S. in Computer Science
Software and Data Systems Development
Aug 2012 – Dec 2014

Bethany Lutheran College
B.A. in Physical Sciences
Aug 2009 – Dec 2014

TECHNOLOGIES

Kotlin, Python, Java, Android, SQL, AWS, Azure, Spring, Pandas, Airflow, Docker, JUnit, Jetpack, OpenAI API