JAMES KRAHE
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PRODUCT MANAGER
Product Manager specializing in data platforms and 0-to-1 product development. At CarMax, scaled modern architecture from 800K to 4M+ weekly transactions while maintaining 99.8% availability across 20+ integrations. Background in human-centered design and emerging technology development (ML, computer vision, robotics) enables unique approach to technical product strategy.

WORK EXPERIENCE

Product Manager | CarMax – Richmond, VA (Hybrid) | 2021 – Present
Led product teams developing both associate-facing products and supporting data platforms. Within my first year, led rapid 0-to-1 development of two critical tools enabling store associates to handle online offers while maintaining existing tools and platforms through the transition. Over the last two years, shifted focus exclusively to data platform ownership and co-led a cross-functional team of PMs, developers, and solution architects designing new microservice architecture for CarMax's appraisal ecosystem modernization.

- **Product Strategy and Planning:** Defined vision, strategy, and roadmaps for multiple products and data platforms; co-authored modernization strategy for new appraisal microservice architecture."
- **Product Development:** Led development of multiple associate-facing web apps capturing critical vehicle data (30K+ daily sessions). Delivered capabilities unlocking new appraisal channels and operational efficiency gains. Built data platforms managing essential operational data (1M+ daily API calls). Developed pipelines integrating with EDL/EDW and legacy systems.
- **Metrics and Analysis:** Scaled platform from 800K to 4M+ weekly transactions (5x growth) with 99.8% average availability across 20+ active client integrations. Reduced average integration time from 15 days to under 5 days (67% improvement).
- **User Research and Empathy:** Conducted on-site store research to gather associate feedback and validate operational impact of deployments. Led client workshops introducing new appraisal architecture and migration impacts.
- **Stakeholder Management and Communication:** Collaborated with product leadership, engineers, architects and client teams to align product vision to ensure cohesive communication across teams and securing buy-in for strategic product initiatives.
- **Project Management and Agile Methodologies:** Led multiple product teams with up to 8 engineers through Agile sprints, prioritizing features and managing timelines to deliver a high-impact product on schedule.

Senior Animation Designer |Carnegie Mellon Robotics Institute – Pittsburgh, PA | 2018-2019
Led creative team collaborating with researchers and data scientists to recreate real-world aerial footage as synthetic training data, accelerating AI and machine learning integration into software transforming data into actionable insights.

- **Leadership and Product Operations:** Led and managed team of 4 technical artists. Gathered requirements from stakeholders, prioritized work, and managed timelines. Sourced equipment, software and digital assets to ensure our team's effectiveness.
- **Cross-Functional Collaboration:** Collaborated with data scientists and researchers to create high quality synthetic data and responded to projected benchmarks and outcomes of experimentation with various models.
- **Stakeholder Management and Communication:** Conducted user research and stakeholder interviews to maximize synthetic data accuracy and utility. Presented results to stakeholders regularly, maintaining alignment and securing continued funding.
- **Adaption and Iteration:** Employed motion capture and 3D animation to recreate real-world video footage and create dozens of highly customizable behavioral scenarios. Generated dozens of customizable behavioral scenarios, rapidly iterating based on researcher feedback and experimental outcomes.

Digital Artist | Disney Research Pittsburgh – Pittsburgh, PA | 2016– 2018, 2012-2013
Partnered with research scientists at Disney Research Pittsburgh to prototype and demonstrate emerging technologies for Walt Disney Company. Distilled complex innovations into focused demonstrations, prioritizing features and deliverables that best showcased business applications and guest experience potential across multiple concurrent projects.

- **Innovation and Design:** Co-designed and built Magic Bench, a first-of-its-kind multi-user mixed reality experience enabling groups to share augmented environments and interact with CG characters through third-person POV—all without user-worn equipment.

- **Cross-Functional Collaboration:** Collaborated daily with researchers, designers, engineers and artists from nearly 40 countries and a wide variety of disciplines including ML, NLP, HCI, robotics, 3d printing, animation, and interactive media.
- **User Research and Empathy:** Learned the importance of human centered design and the power of hypothesis driven experimentation to find the magic in creative and technical problem space.

Technical Artist | Toyota Research Institute – Cambridge, MA (Remote) | 2018 – 2021
Collaborated with three separate teams of engineers and computer scientists to create 3D ML training and support files deployed for cutting edge assistive robotics research.

- **Adaption and Iteration:** Collaborated with researchers to transform numerous domestic objects and environments into digital assets with millimeter accuracy. Refined YAML and texture files to define key parameters and material properties. Godot game engine was used to simulate millions of synthetic iterations to train the models for the computer vision and robotic manipulator.
- **Innovation and Design:** Gained deep understanding of ML applications in robotics, including both capabilities and limitations.

Lead Artist | 3dplus.me (Technology Start-up) - Provo, UT (Remote)| 2013 – 2016
Led the creative development for a 3D technology startup that specialized in a "scan-to-print" personalization platform. Launched the "Super Awesome Me" experience, which allowed fans to have their faces scanned and placed onto 12-inch action figures of iconic characters like Iron Man, Captain America, or Star Wars Jedi.

- **Product Development:** Collaborated directly with our CTO and engineering team during the development of our core technology pipeline, bringing to bear my creative expertise and knowledge of related 3D printing technology.
- **Product Launch:** Traveled the east coast to aid in marketing and sales at live customer-facing events. Repaired and debugged on-site technology during initial retail deployments at Walmart.
- **Partnerships:** Strengthened relationships with major product partners such as Marvel and Ubisoft with clear and collaborative communication creative development.

EDUCATION
VCU Brandcenter | 2020
Master of Science, Business & Branding Strategy (Concentration in Experience Design)
Carnegie Mellon University | 2013
Bachelor of Arts, Fine Art (Concentration in Sculpture and Electronic Media)

ADDITIONAL INFORMATION

- **Certificates:** IBM Enterprise Design Thinking - Team Essentials for AI | IBM Enterprise Design Thinking Practitioner
- **Skills & Tools:** Product Strategy | Product Roadmap | 0-to-1 Product Development | Product Vision | Feature Prioritization | Backlog Management | Product Requirements Documents (PRDs) | User Stories | Go-to-Market Strategy | OKRs & KPIs | Cross-Functional Leadership | Stakeholder Management | Agile/Scrum | Sprint Planning | Data-Driven Decision Making | User Research | Rapid Prototyping | Executive Communication | 3D Graphics | 3D Printing | Augmented Reality | Data Strategy | Data Quality | API Design | Cloud Platforms (Azure) | Microservices Architecture | Data Pipelines
- **Publications:** Taylor, S., Kim, T., Yue, Y., Mahler, M., Krahe, J., et al. (2017). "A Deep Learning Approach for Generalized Speech Animation." ACM Transactions on Graphics (SIGGRAPH 2017), 36(4) | McIntosh, K., Mars, J., Krahe, J., et al. (2017). "Magic Bench: A Multi-User and Multi-Character Mixed Reality Platform." ACM SIGGRAPH 2017 Emerging Technologies. | Brockmeyer, E., Pouprev, I., Mahler, M., Dauner, J., Krahe, J., et al. (2017). "PAPILLON: Expressive Eyes for Interactive Characters." ACM SIGGRAPH 2013 Emerging Technologies.