Jeffrey A. Kramer

5718 196th Ave NE
Redmond, WA 98053

847-997-9410 (mobile)
jeffkramr@gmail.com
http://mind-melt.com

Qualifications

- Technical Advisor to Kevin Scott, CTO of Microsoft

- Cofounder of Transparent Financial Systems, raised $22M in both seed and Series A rounds, as well as hiring from 2 to almost 30 in two years

- Technical Advisor to Paul Allen with oversight and input into 90+ projects and investments, including AI, cellular, and brain science

- Successfully designed, built, and deployed a subsea datacenter in about a year

- Designed and built several robotic and autonomous systems, for both commercial and government clients

- Management experience in fintech, military, medical, and private industry research, as well as product design and development

- Lead and secondary author in 10 academic, industry, and popular publications, as well as 6 patents (Available on request)

- Master of Science in Computer Science and Bachelor of Science in Electrical Engineering

Specialized Qualifications

- Academic: Mobile Robotics, Computer Vision (3D and 2D), Artificial Intelligence, Machine Learning, Control Systems, Neural Networks, Distributed Systems, Mathematical Filters, Sensor Fusion, Autonomous Vehicles

- Technical: Go, Python, TSDB, SQL, C/C++, Java, Assembler, Ladder, Embedded Systems

- Professional: Technical Management and Leadership, Technical Architecture, AI/ML, Mobile Robotics, Autonomous Vehicles, AR/VR, Remote Sensing, Blockchain, Fintech, Building New Products

Selected Experience

Technical Advisor Redmond, WA
Microsoft June 2022 - Present

- Technical Advisor to Kevin Scott, the CTO of Microsoft

- Technical and strategic leadership for multiple projects across Microsoft, with a particular focus on artificial intelligence and architecture

  - Led Microsoft-wide effort to unify Copilot extensibility artifacts and systems leading to a single methodology and design
  - Worked closely with all parts of the organization, from field and Marketing, through distinguished engineers and executives to deliver a unified extensibility position for the entire company
  - Designed hybrid inferencing infrastructure and other AI systems in collaboration with leading engineers across the company
  - Led Microsoft-wide strategy and technical design for multiple Web3 projects and systems

Cofounder and CTO Seattle, WA
Transparent Financial Systems July 2018 - February 2022

- Leadership, Strategy, and Going from 0 to 1

- Cofounder of Transparent Financial Systems as a spinout of Vulcan Inc (now Vala) —Transparent was a fintech building software that creates real-time settlement networks
- Built a team from the ground up from 2 to almost 30 in two years
- Designed and architected technical and business systems for Xand, Transparent's payment network
- Raised $22M for the company from both VCs and large enterprises
- Accountable for the creation of new cryptographic privacy systems and a highly available distributed system built on a blockchain
- Led a team of 14 engineers and two product leads, with three managerial reports

Technical Advisor   Seattle, WA
Vulcan Inc.   Sept. 2017 - Aug. 2018

- Technical Advisor to Paul Allen

- Technical oversight and review of 90+ projects and investments at Vulcan Inc., as well as the Allen Institutes

  - Problem solving across a broad domain - everything from drones to stop poachers in Africa to satellite systems to halt illegal fishing and from cell science to artificial intelligence
  - Daily interaction with the executive leadership team
  - Ideation and rapid prototyping of hardware and software products, as well as patent creation

Senior Member of Technical Staff   Redmond, WA
Microsoft Research   Aug. 2014 - Sept. 2017

- Engineering and Program Management for Project Natick (http://projectnatick.com/)

  - Designed and built a subsea datacenter
  - Solved problems at every level of the stack - from hardware and software to thermal physics models to marketing and promotion
  - Worked with and helped manage a large number of contractors to deliver the project on time
  - Developed and executed rapid experiments to test solutions to difficult problems
  - Proved a variety of alternative cooling schemes for a subsea datacenter
  - Architected and implemented a cloud connected, high speed sensor network for system health and control
  - Successfully troubleshot difficult problems with the implementation of the vessel in the process of building the system
  - Designed and built the Project Natick website, as well as participated in all aspects of marketing and launch

- Engineering for Holoportation

  - Rebuilt Holoportation (real time AR/VR capture and transmission) to fit into a vehicle
  - Reduced bandwidth requirements by 97%
  - Reduced required onboard computation from seven machines to one
  - Built custom hardware and systems to support in-vehicle Holoportation

- Business Case and System Architecture for Azure Auto prototype

  - Successfully designed and sold through plan to the executive level for what is now Azure Auto
  - Worked with outside automotive companies to serve their needs for connected car and potential future autonomous vehicle solutions

Lead Robotics Engineer   Valley City, OH
MTD Products   Apr. 2013 - Jul. 2014

- Software and Electrical Team Lead on autonomous lawnmower project

  – Led software and electrical product design for autonomous robot system, with five direct reports
  – Worked in a crossfunctional group to design a product using privileged consumer insights
  – Interfaced with stakeholders and suppliers to drive requirements and system choices
  – Built system requirements from focus group and consumer event interactions
  – Designed the software and hardware architecture from the ground up, from embedded systems to the cloud
  – Wrote advanced robot simulation software for test, validation, and analysis
  – Performed sensor system design and analysis

Senior Roboticist   Pittsburgh, PA
Deeplocal   Dec. 2012 - Mar. 2013

- Creative coding and design for multiple clients

  – Designed innovative experiences for major brands
  – Implemented prototypes of experiences
  – Addressed proposals and technology feasibility requests with both advertising agencies and brands
  – Made successful pitches to brands and agencies, including Google

Research Programmer   Pittsburgh, PA
NREC - National Robotics Engineering Center   Oct. 2010 - Dec. 2012

- Research Programmer for multiple robotics projects

  – Hybrid Safety System (HSS) - industrial robot safety system to allow humans and robots to work in close proximity
  – Automated Hauling System (AHS) - autonomous driving for 38 ton mining trucks
  – ACRS - stripping paint from military planes with high powered lasers mounted to giant, mobile robot arms
  – Perception, sensor fusion, and occupancy probability
  – Self-driving vehicles and obstacle detection
  – Testing and verification for sensors and systems

Education

University of South Florida   Tampa, FL
Master of Science in Computer Science   Aug. 2005 - May 2010

- Thesis: Accurate Localization Given Uncertain Sensors

University of Illinois at Urbana-Champaign   Urbana, IL
Bachelor of Science in Electrical Engineering   Aug. 2000 - May 2004

- Senior Project: Quantum Cryptography Randomization Engine