ARJUN NAGENDRAN

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2015 - present: *Co-Founder & Chief Technology Officer, Mursion, Inc., San Francisco, CA, USA*
Role: Direct company's vision and roadmap, oversee company's technology, product and service strategy, design and develop novel architectures for VR simulation experiences and build machine-learning based analytics for performance measurement.
*Clients and Growth: ~**225** global clients, **5-yr 59% CAGR**, Series-A / B total raise: **$35M**, Valuation: 9 figures*
Verticals: Corporate (Leadership, HR), Education, Hospitality, Healthcare, Sales
*Outreach: **>100,000** users / year*

Awarded Patents

- *Control System for Virtual Characters*. **US Patent 10,489,957**
- *Control Interface for Robotic Humanoid Avatar System and Related Methods.* **US Patent 9,987,749**
- *System for Detecting Sterile Field Events and Related Methods*. **U.S. Patent 9,808,549**
- *Physical-Virtual Patient Bed System*. **U.S. Patent 9,679,500**
- *Semi-Automated Digital Puppetry Control*. **U.S. Patent 9,381,426**

Awards & Recognition

- Global Alumni Awards UK, USA Finalist, 2018
- Global Ed Tech Startup Awards Finalists and U.S.West Coast Winner, 2017
- Office of Naval Research, Technological Excellence Medal, 2013
- NTSA Governor's Award for Excellence in Modeling & Simulation, 2013
- AACTE Best Practice Award for Innovation in Technology, 2012

Education

- Institute for Simulation and Training, USA, **Research Scientist**, **Virtual Reality & Robotics** [2011 - 2015]
- University of Central Florida, USA, **Post-Doctoral**, **Computer Vision** [2009-2011]
- University of Manchester, UK, **Ph.D**. **Robotics and Control Systems** [2005 - 2009]
- University of Manchester, UK, **MS**, **Advanced Computer Science (Artificial Intelligence)** [2004 - 2005]

2013 - 2015: *Research Assistant Professor, Institute for Simulation & Training, University of Central Florida, Orlando, USA*
Roles and Responsibilities: Served as PI / Co-PI / Senior Investigator on multiple grants, technical lead on robotics / virtual-reality research, research prototype design and development, advising/mentoring students, and leading human-subject studies., Co-authored ~30 Peer Reviewed Publications

Skills

- Strategic Thinking & Fundraising: Executing on short and long-term roadmaps to develop technology and product while supporting sales and marketing pipeline. Analyzing product-market fit and fundraising to support aggressive growth.
- Technology / Hands-On Development: Proficient in cross technology platform development and architecture. Continually involved in prototyping software and algorithms in C#, C++, Java, Python, and related technology stacks for Android, iOS, Windows and Mac to evaluate state-of-the-art research, demonstrate product capability and market-value, and understanding nuances to steer innovation.
- Multi-disciplinary Influence: Collaborate with experts in data science, machine learning, social and behavioral psychology, and virtual reality to facilitate information exchange within teams to create highly engaging and marketable products.
- Team Building: Experience building cross-disciplinary teams, managing multiple deliverables from globally distributed teams, and identifying accordion models of production to meet company financial targets.
- Intellectual Property Creation & Writing: Successful patent applications and grant writing experience in academia and industry. Author of thought leadership pieces (see personal website blog).

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Executive Experience

- Serve on board of directors, leading company's technology and product vision while co-leading overall company direction.
- Manage company R&D and operations budget to meet fiscal year targets.
- Define technology, product, and innovation pipeline to support the seamless merger of human reasoning and artificial intelligence in Virtual Reality.
- Interface with clients and serve as technology advisor/architect for new line of products that integrate core company IP
- Interface with legal counsel for business matters (negotiate contracts, mNDAs, MoUs etc.), author and file patents to protect company IP.
- Architect engineering software to support scalability, enterprise security, performance, authentication, authorization (SSO / LMS), and related B2B enterprise requirements.
- Define data protection and IT policies in compliance with security policies such as GDPR and audits such as SOC 2 or similar.
- Establish engineering best practices and processes to support client-focused development strategy.
- Define AWS infrastructure, interfaces, and cloud-based services for product.

Robotics Experience

- Control Systems: Development of closed-loop control systems with a focus on compliance of manipulators including admittance and impedance control, self-tuning, adaptive control, and non-linear stiffness control.
- Autonomous Systems: Ground Vehicle Systems lead for a Military Defense Project (MOD, Grand Challenge, UK) that required the deployment of autonomous vehicles to detect, monitor and report a comprehensive range of military threats in urban environments. Research involved novel robot design, control schemes for locomotion and autonomy.
- Mechatronics: Designs for mobile robots including dual 4-bar mechanisms for performing biologically-inspired burrowing motions, and serial link manipulators to perform biologically-inspired leg-based perched landing and launching for Unmanned Aerial Vehicles.
- Biomedical Robotics: Co-developing the laboratory course module for the new bioengineering course at UCF by leveraging the Raven III surgical robot and Phantom Omni haptic devices (Florida Biomedical Engineering Partnership Award.)
- Software/Protocols: C/C++, C#, SimWise4D, Matlab, Simulink, LabView, CANOpen, Serial.

Synergistic Activities

- Served as Principal Investigator / Co-Principal Investigator: ~$2.5M in federal grant funding for research
- *Conference Committee:* IEEE Virtual Reality (IEEE VR) 2013 (Research Demo Co-Chair); 11th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2014)
- *Conference & Journals Review Panel:* Robotica; Advanced Robotics; Virtual Reality Journal; IEEE Aerospace and Electronic Systems Magazine; Entertainment Computing; IROS 2010, ISMAR 2011; IEEE VR 2013; ACE 2011

Advisory Roles

- Industry Mentor - Leeds University, UK (Ph.D and Masters Thesis External Advisor)
- Technical Advisory Board - Hume.AI (Artificial Intelligence for Emotional Well-Being)

References

- Available upon request.