ALEX JONES

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Publications

Jones, A. & Nelson, G. (2023). "A Constructionist Learning Environment for Accessible Agricultural Robotics in Rural Communities via Making and Remixing." Fablearn / Constructionism Conference, New York, New York.

Experience

Graduate Research Fellow **September 2023 - Present**
National Science Foundation **Orono, Maine**

- Graduate research at the intersection of spatial computing and maker education
- Focus on equitable STEM learning environments for underprivileged communities

Founder, CEO **April 2019 - September 2023**
Farmhand Automation **Biddeford, Maine**

- Designed and built three iterations of low-cost autonomous robotics platform for sustainable farming
- Developed horizontally scaled digital manufacturing workflow and design studio including 3DP and CNC
- Design and technical lead on mechanical, electrical, robotic software, and mobile application
- Developed modular web-service robotics framework using docker, redis, flask, python, and websockets.
- Led and coached team of five novice engineers during the pandemic across mechanical, electrical, and software
- Raised over $800,000 in private investment, state, and federal grant funding

Director, Customer Engagement **May 2018 - March 2019**
iUNU Inc. www.lunapowered.com **Seattle, Washington**

- Primary focus to hold company accountable to customers in fast paced high-tech environment
- Led deployment of robotic system to agricultural customers across 4 US states and Canada
- Built monitoring software used company wide for hardware uptime to drive results measurement
- Revitalized cold sales prospects with scaleable pilot initiatives that led to new sales
- Developed SOP's, metrics and KPI's for customer success, onboarding and sales engineering

Principal Product Manager **July 2017 - May 2018**
iUNU Inc. www.lunapowered.com **Seattle, Washington**

- Empowered engineers and designers to own their work and make great product decisions for scale
- Agile product owner for company of 30 across web, robotics and computer vision teams
- Led systems design on robotic inventory management system and mobile web application
- Delivered first robotic fleet deployment, bug-fixes, and onboarding with customers
- Conducted business analysis, value and process mapping, for greenhouse horticulture market 5-20+ acre size

Emerging Technologies Advisor **April 2017- March 2019**
Western Growers Association www.wginnovation.com/ **Salinas, California**

- Consultant with the leadership of the Western Growers Association to identify agricultural technology trends
- Research and survey new technology companies entering the market approaching the agricultural community
- Acting liaison for startups in San Francisco to the Salinas Valley agricultural hub

Product Manager **January 2016 - February 2017**
Forager LLC www.goforager.com **Portland, Maine**

- Designed ecommerce platform for local food featuring product search, order, digital invoicing and ACH payments
- Executed 6 month private beta, $350K in local food transactions and 1,000+ orders across 2 grocers and 30 farms
- Converted 90% of offline transactions to online orders and on-average increased farmer revenue by 10%
- Product owner with agile team including 5 remote developers for 4 month build, $50K under budget
- Managed 4 live product releases during the 6 month pilot with rapid bi-weekly customer feedback sessions
- Collaborated with local bank to design custom ACH integration reducing fees from 80 basis pts to 0.01 basis pts

User Experience Strategist (Consultant) **October 2015 - December 2015**
Forager LLC www.goforager.com **Portland, Maine**

- Conducted interviews across 20 users including various buyer and seller archetypes
- Conducted industry market research generating financial models favoring grocery market over other retailers
- Redefined strategy to focus on large wholesale grocers increasing revenue to acquisition cost by 500%
- Overhauled original iOS concept and wireframed new desktop enterprise web solution
- Created mockups leading to beta customer commitment by key grocers and network of dozens of local farmers
- Work led to help close $875k in seed round and became first hire as product manager

Product Research and Design **September 2013 - December 2015**
Bee Informed Partnership www.beeinformed.org **University of Maryland, College Park**

- Responsible for identifying new digital services to generate revenue for honey bee research initiatives
- Implemented human centered design principles and conducted 12 surveys across sample of 1,000 users
- Analyzed data using quantitative analysis including rank order, open text word frequency and A/B testing
- Designed crowdsourcing platform delivering bi-weekly best practices advices to beekeepers for 12 month beta
- Platform held 80% retention rate, 40% user increase and 20% conversion to paid memberships

Founder and CEO **September 2012 - January 2016**
Apiara Hive Technologies **Portland, Maine**

- Prototyped and produced first sub $1,000 IoT device to monitor honey bee health and performance for $199
- Raised $100k in state R&D grant funding and committed presales of over 100 units of product
- Conducted quantitative market study, in person user interviews and remote user interviews
- Managed component supply chain and sourcing direct from 8 Chinese manufacturers for assembly in U.S.

Technical Skills

Web: React, Docker, Flask, FastAPI, Redis, NoSQL, WebGL, Babylon.js, Python, Javascript, Typescript
Embedded: C++, Arduino, RPI, Object Oriented C, Performance Testing, Comms Bus Protocols (I2C, Serial, SPI, CAN)
Mechanical: Fusion 360 CAD/CAM, CNC Machining, Large Format 3D Printing (FDM), Thermal and Load Analysis
Electrical: Microcontroller Circuit Design, Sensor Integration, Power Banks, Monitoring, Brushless Motor Control

Education

PhD, Spatial Information and Engineering **2023 - Present**
University of Maine **Orono, Maine**

Bachelor of Arts, Film and New Media **2003 - 2007**
Emerson College **Boston, Massachusetts**