James Adams

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Striving to lessen stress on global consumption rates through
thoughtfully adaptive sustainable-centric infrastructure and technologies

SUMMARY

Innovative and driven entrepreneur, researcher, and inventor creating solutions that spark positive, sustainable advancement to improve biodiversity and carbon footprint by offsetting the ecological imbalance of our climate and resources. Seeking a role to provide adaptive solutions to enhance biodiversity while sustaining economic value and growth based on markets and regional conditions.

EDUCATION

University of Houston – Downtown, University College – Houston, Texas December 2019

Bachelor of Science, Engineering Technology and Sustainability Minors with a focus in Business

Student commencement speaker for Fall 2019 Graduating Class

Grant Project: *PANGEA - How to Grow Food Efficiently Where You Live;* researched and developed an outdoor cradle to cradle hydroponic system utilizing water and energy capture technologies with conservation design

AWARDS – Outstanding Sophomore (2018), Community Service and Learning Engagement Grant (2018), Sustainability Initiative Grant (2018), Pell Grant Scholarship (2018)

SKILLS

Software:	AutoCAD, Sketchup, Microsoft (MS) Office, Excel, Word, PowerPoint, E-Commerce (SEO), PSpice, Outlook
Instruments:	Electric Circuits, Renewable Energy Systems, Rainwater Collection and Installation
Language:	Python, VBA
Laboratory:	Streak Platting, Injection Molding, Machining, Welding
Writing:	Feasibility Reports, Cost-Benefit Analysis, Proposal Writing, Business Plan, Marketing Strategy, Patent and Trademark (USPTO Filing), Creative Writing
Verbal:	Pitching, Public Speaking, B2B & B2C Client Relationships, Event Producing

RELEVANT COURSEWORK

Business Technical Report Writing, Economics and Accounting, Economic Development, Managerial Economics, Money Markets and Institutions, Fundamentals of Sustainability, Renewable Energy Systems, Electric Circuits with Lab, Intro to Python, PC Applications in Engineering, Industrial Hygiene Instrumentation, Investigation Root Cause and Analysis, Emergency Management and Contingency Planning

EXPERIENCE

Gallant Culture – Houston, Texas December 2020 – Present

Sustainability Consultant

- Writer and editor of technical content
- Consult company and client companies on sustainability initiatives for messaging and branding

Sustainable Harvesters – Hockley, Texas September 2020 – Present

Assistant, Analyst, & Sales Representative

- Developing ROI analysis and conducting RCA to maximize greenhouse operations
- Research the integration of renewable energy and experimentation of generating electricity from lettuce
- Aiding team on daily operations activities and selling at local farmers markets, performing deliveries, and sourcing clients

SEAL Awards – Sustainability Awards – Houston, Texas July 2020 – Present

Impact Team Member

- Researching e-commerce platforms sustainability initiatives to organize and design sustainable filters in a remote team setting

Moss Landscaping – Houston, Texas November 2019 – Present

Drainage and Irrigation

- Design-build firm installing drainage and irrigation for new and existing construction projects within the confines of city permit guidelines with an annual $1 million budget

PROJECTS

Climatic Station – Houston, Texas November 2019 – Present

- Utilizing Python and fundamental knowledge in CAD design and 3D Printing led to hardware development pulling real-time data into a pre-configured database

- Constructing autonomously reactive greenhouse collecting climate data referencing historic data trends and behaviors
- Implementing triggers for IoT devices to automate optimal interior conditions of PANGEA Greenhouse

ESG Metric Database – Houston, Texas April 2018 – Present

- Database determining the environmental, financial, and human gross margin of the PANGEA Greenhouse with Microsoft Excel and Visual Basic (VBA)
- Compiled information on the material weight and density of Pangea Greenhouse materials used to calculate the environmental footprint
- Determined hitherto a 96% environmental gross margin in the Pangea Greenhouse's first year by subtracting amount of water and renewable energy produced by the anthropogenic emissions and land footprint
- Calculated as yet a human's gross margin of 70% by subtracting the number of laborers and labor hours to the nutritional value and amount of food provided

PANGEA Greenhouse – Houston, Texas April 2018 – Present

- Harvesting food, water, and energy through adaptive design
- Supported by two UHD/USDA grants totaling $5,000 and earned the nomination to present in three local and regional conferences
- Successfully harvested solar and wind energy while proving no significant statistical difference between plants grown in PANGEA system and classic soil-bed
- Addressed project outcomes through written reports including an Investigation Root Cause Analysis and Emergency Management and Contingency Plan

Jizo, Instant Tent – Houston, Texas May 2017 – March 2019

- Developed ~36 SQFT, 3-season instant tent compressing into hand-held device with human-centric modular design
- Formed community partnerships with a local digital factory and fabric manufacturer
- Created 3D printed parts through Autodesk Fusion 360 and conducted product testing throughout all phases of development

Waterproof Case – Houston, Texas May 2017 – August 2017

- Created airtight, waterproof case for personal valuables (phone, wallet, keys, etc.) utilizing CAD software and 3D Printing (rapid, affordable prototyping)
- Determined waterproof rating by using a colored dye to discover areas susceptible to water leaks

Automated Recycling Bin – Houston, Texas

- Conceptual design performed through Autodesk Fusion 360 designated to operate through computer vision and robotics

Automated/Manual Compost Bin – Houston, Texas

- Designed to perform multiple functions (chop, mix, and ferment) for breaking down organic matter, paper, and cardboard
- Performed market research to determine product fit

Automated Traffic Light System – Business and Implementation Plan

- Produced research and development addressing the issue of traffic congestion for the city of Houston followed by an implementation plan
- Designed camera case housing raspberry pi, camera module, and battery pack recording data through prewritten software
- Produced video outlining the mission and objective for the service and implementation plan

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RESEARCH

University of Houston-Downtown – Houston, Texas December 2017 – May 2018

Researcher

Solar Park Canopy – Fundamentals of Sustainability

- Conducted research proposal and feasibility report within a group for UHD to adopt a solar park canopy
- Calculated potential power generation and allocation with estimated economic and environmental savings
- Investigated proven methods at Michael E. DeBakey VA Medical Center, and visited their facilities and management team with team members
- Visited UHD's Facility and Management Department to determine logistics and adaptation
- Developed relationships with University faculty and staff for mentorship and collaboration

Aerial Ropeway Transit Feasibility Report and Proposal – Business and Technical Reports

- Drafted cost-benefit analysis between existing shuttle bus system and proposed aerial ropeway transit system during three-week winter break mini course for UHD
- Determined logistics and adaptation through analysis and consultation with UHD's Facility and Management Department

Manual vs Automated Compost System Comparative Analysis – Renewable Energy Systems

- Researched and presented within a group to determine environmental, financial, and social impact between manual and automated compost system

- Performed streaks of isolation and streak platting from compost pile samples collected at a local urban farm, Finca Tres Robles

PUBLICATIONS

- International Journal of Occupational Hygiene, Investigative Root Cause Analysis for Land Free Microgrid Farm for Food, Water, and Energy
- Peer-review and submission for the academic paper, Emergency Management Adaptive and Mitigation Techniques through Sustainable Development

PRESENTATIONS

Adams, James. "Pangea – Growing Food Efficiently Where You Live," Community Engagement, Service Learning & A+CE Luncheon, University of Houston – Downtown, Houston, Texas, May 1, 2019
Adams, James. "PANGEA – Growing Food Efficiently Where You Live", 2019 Gulf Coast Summit Conference, Sam Houston State University, Huntsville, TX, April 4, 2019
Adams, James. "PANGEA – Growing Food Efficiently Where You Live", 2019 University of Houston – Downtown Student Research Showcase, Houston, TX, April 14, 2019
Adams, James, "PartnerUP App", BBVA Momentum Regional Finalist, Austin, TX, April 2017
Adams, James, "PartnerUP App", Small Business Expo at Houston Food Bank, Houston, TX, March 2016

INTERNSHIPS

University of Houston - Downtown – Houston, Texas Summer 2018
Center for Urban Agriculture and Sustainability
Participant & Competitive Experiential Learning Program

- Design and developed an automated compost system with a team collecting compost pile samples and performed streak platting in biology laboratory

ENTREPRENEURSHIP

Viappii, LLC – Houston, Texas January 2015 – Present
Tech Creation Company
Founder

- Raised $30,000 in initial capital, managing remote operations overseas with a one-year product delivery turnaround and responsible for marketing, finance, accounting, and government filings

PartnerUP App, LLC – Houston, Texas February 2015 – 2017
Mobile Application
Founder

- Managed product and design, attaining a total of 500 app users and became a BBVA Momentum Regional Finalist
- Presented product at conference with ~250 people in attendance and produced three consecutive events with a total of 300 attendees

COMMUNITY PARTNERSHIPS

Northworks Automation

- Digital factory specializing in consultation, 3D printing and engineering services, machinery, molding, and access to other equipment and resources to produce at limited mass production

W.K. Hill Tent and Awning Co.

- Custom fabric manufacturer providing consultation, materials, and other master copies of fabric arrangements for a diverse and prominent b2c and b2b clientele serving many industries from Cirque du Soleil to NASA
- Other services include metal fabrication, structural design and development

VOLUNTEERING

Texas House of Representative District 126 November 2018 – January 2019

- Represented candidate in various fundraising and campaign functions, developing relationships with constituents
- Proposed marketing strategy utilizing social and targeted ads to leverage campaign message and candidate voice
- Advised marketing team to develop unique and community outreach event

Crime Stoppers Houston December 2018

- Developed a pitch with a team of five for high school students
- Created PowerPoint presentation
- Corresponded with Crime Stoppers and community church

Levy Park Community Garden February 2020 – Present

- Attend garden events helping parkgoers sow seeds and answer questions pertaining to gardening

ADDITIONAL

Licenses and Certifications – Completing Texas Landscape License, Irrigator License, and LEED Green Associate Certificate