JACK SENECHAL

ENGINEERING LEADER / ENTREPRENEUR

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SUMMARY

- Proven leader in software development, infrastructure, and **team management** with **15+ years** of hands-on experience
- · Committed mentor and coach, elevating team members' skill sets and fostering professional growth
- Strategic thinker, mercurial innovator, and expert problem solver
- · Resilient and dedicated, ready to embrace challenges and opportunities
- Strong customer focus, advocating for impactful changes and ensuring product value
- Entrepreneurial spirit with multiple co-founding experiences
- Full-stack generalist specializing in DevOps, AI/LLM integration, and modern web
- · Currently available for fractional CTO and technical consulting engagements

INDUSTRY EXPERIENCE

Co-founder, Building Humane Technology

(2024 - Present)

- Co-founding an initiative to create practical tools and frameworks for measuring and improving humaneness in AI systems.
- Building an open-source Humane Tech Framework to help builders, designers, and product teams create technology that serves human well-being.
- Community building and event organization, including hackathons and meetups focused on humane technology practices.
- Developing metrics and assessment tools to make humane tech practices accessible and actionable for organizations.

Co-founder, Mirror Astrology

(Nov 2024 - Present)

- Chatbot development integrating multiple LLMs, complex prompting, tool use, and context augmentation.
- Product development, Figma design, UX/UI design. Creating delightful and polished features.
- Full-stack development with Ruby on Rails, HTML+CSS, Tailwind, JavaScript, responsive UI+UX.
- Project management, roadmap planning, prioritization, and critical path identification.
- Product and company visioning, product-market fit analysis.

Infrastructure Engineer, Tobiko

(Mar 2024 - Oct 2024)

- Collaborated with a fast-paced team to architect and implement a robust, scalable, modern cloud platform serving customer workloads.
- Built out CI/CD patterns including mono-repo conditional workflows, workload identity federation, and continuous delivery.
- Implemented a Slack-based customer support and incident response platform, and onboarded teammates and customers.
- Python, Pulumi, Google Cloud Platform, Google Kubernetes Engine, Google Cloud Run, CI/CD with CircleCI, Helm, SQLMesh.

Engineering Manager / Principal Software Engineer, Kantata

(2017 - Dec 2023)

Operations Team Leadership: Over four years, I recruited and led a new team dedicated to building and scaling the
infrastructure platform. I was instrumental in leading the organization's transition towards a DevOps culture. I created a
clear, calm, and constructive environment that allowed the team to thrive. I was responsible for roadmap stewardship,
untangling requirements, and arranging priorities to maximize flow. We transitioned a large legacy infrastructure codebase to
cutting-edge, cloud-native, IAC-oriented tools. I was also involved in coding, architecture, and collaboration on numerous
mission-critical projects.

- **Insights Platform Leadership**: For three months, I led a short transition team that was responsible for overseeing and improving the BI data pipeline. We successfully migrated the pipeline to Kubernetes.
- M-Bridge Platform Leadership: For two years, I spearheaded a new team to stabilize and enhance an agent-based integration platform. We established operational metrics that significantly reduced errors and incidents by approximately 100x. We successfully performed a migration to Kubernetes with zero downtime, including relational, document, and cache databases.
- Additional Responsibilities: I took on cross-functional roles that included mentorship and coaching, interviewing and hiring, and organizational change management and process optimization. My efforts were recognized when I received the Top Performer Award in 2021.

Lead Developer, Co-founder, Pegg

(2014 - 2017)

- Development: Design, architecture, and implementation of cross-platform mobile game targeted at iOS and Android via PhoneGap.
- Team Processes: Implementing and honing development workflow with agile methods such as pair programming, testing, and continuous integration. Developing launch strategy, and setting up processes and workflows to enable rapid response to issues
- Business Strategy: product design, monetization strategy, marketing strategy, as well as contributing to the company's mission, vision, and governance models.
- Technology: Famo.us/Flux front-end, Parse/Node backend, Firebase for real-time notifications and chat, Webpack and Gulp build environment, Karma/Chai testing, and continuous deployment to AWS/Cloudfront via CircleCI.

Consultant and Entrepreneur

(2008 - 2014)

- 2014 Rapid prototyping of global-graph technologies using XDI. Integration of XDI services with existing Ruby on Rails
 application. Launched beta cloud name service based on XDI and Node.js.
- Superluminal Systems 2013 Helped to develop the Superluminal Learning Management System and launch the first client site. Building data visualizations and UI elements in D3. WordPress plugin wrangling, development, and customization.
- OpenTest Pro, LLC 2008 2012 Founded the company to provide educational resources relating to automated testing and continuous integration using open-source tools in a PHP environment. Technical writing, web application development in Ruby on Rails and Flex, studio voiceover recording, and project management.
- Turnbull & Asser shirtmakers 2009 Built a virtual showroom for their bespoke department, allowing users to browse fabrics and place orders. Ruby on Rails backend, Flash frontend.

Web Developer, OnForce, Inc

(2006 - 2007)

- Introduced automated testing and continuous integration. Implemented a comprehensive test suite for the public-facing API.
- Project managed the implementation of Salesforce throughout the company and oversaw the administration of the application.
- Integrated OnForce platform with Salesforce APIs to provide up-to-date customer information for sales and support teams.

Development Lead, JBA Network

(2003 - 2006)

- Project manager and lead programmer for mynewsletterbuilder.com. Architected and implemented the initial release, and later oversaw the development team for the project.
- Developed a modular, evented, MVC programming framework.
- Concept development, project management, and programming for other company products and services, including jukeboxalive.com and byregion.net.
- Systems administration and networking (Linux, Windows).

Intern, US Navy FNMOD

(2001)

- Programmer and database designer for the Fleet Numerical Meteorology and Oceanography Detachment.
- Migrated Navy weather data from a flat text format to a MySQL database.
- Wrote a Java application to quality check, normalize, and convert weather data to a MySQL-accessible format.

OPEN SOURCE PROJECTS

Scan MCP (2024 - Present)

MCP (Model Context Protocol) server for scanner automation and document digitization. Privacy-first architecture with smart device discovery, JSON Schema validation, and support for both local stdio and network HTTP transports. TypeScript/Node.js.

github.com/jacksenechal/scan-mcp

HumaneBench (2024 - Present)

Evaluation framework for measuring human-friendly behavior in AI assistants, built on AISI Inspect. Tests AI responses across humane technology principles including loneliness, mental health, transparency, and privacy. Supports multiple LLM providers with extensible scenario datasets. Python.

github.com/buildinghumanetech/humanebench

SKILLS

Technical Skills

- · Languages & Frameworks: Ruby on Rails, Python, Node.js, JavaScript, TypeScript, Bash.
- **AI/LLM Development**: MCP (Model Context Protocol), chatbot development, prompt engineering, tool use, context augmentation.
- Databases: MySQL, PostgreSQL, MongoDB, Redis, Cloud-based data services.
- Tools & Platforms: Kubernetes, AWS (Amazon Web Services), Google Cloud Platform, CircleCI, GitHub Actions, Terraform, Ansible, Pulumi, Linux, Git, Webpack, Cloudfront, Helm.
- **Web Technologies**: HTML, CSS, Tailwind, Front-end Development, Responsive Design, Back-end Development, Distributed Systems, Web3/DWeb, Decentralized Technologies.
- **Software Development**: Object-oriented programming (OOP), Functional Programming, API Design and Development, Automated Testing, Continuous Integration, Continuous Deployment, CI/CD, System Architecture, Microservices.

Methodologies

- **Project Management**: Agile, Pair Programming, Test-Driven Development (TDD), DevOps, Lean Thinking, Rapid Prototyping, Scrum, Kanban.
- **Design & Architecture**: Software Design Patterns, Systems Design, Infrastructure as Code (IAC), Data Pipeline Design, Cloud-Native Architecture, User Interface Design.

Organizational & Soft Skills

- **Leadership & Management**: Team Building, Cross-Functional Leadership, Coaching & Mentoring, Talent Recruitment & Development, High-Performance Team Management, Strategic Planning, Decision Making, Change Management.
- **Communication & Collaboration**: Effective Communication, Stakeholder Engagement, Negotiation, Problem-Solving, Conflict Resolution, Customer-Oriented Approach.
- **Innovation & Creativity**: Entrepreneurship, Creative Problem Solving, Product Development and Innovation, Adaptive Learning, Forward-Thinking.

Additional Competencies

- **Industry Knowledge**: Software Engineering, Web Development, Cloud Computing, AI/ML Development, Startup Ecosystem, SaaS, PaaS, B2B Software, Humane Technology.
- **Personal Attributes**: Resilient, Innovative, Dedicated, Entrepreneurial, Strategic Thinker, Out of the Box Thinker, Detail-Oriented, Analytical, Kind and Compassionate, Truth Seeker.

EDUCATION

University of North Carolina at Asheville

(May, 2003)

- BA in Mathematics, minor in Computer Science.
- · Graduated with distinction in Mathematics.
- Undergraduate research in 4D fractals.

RECOMMENDATIONS

- "Jack is an exceptional engineer and leader. He strives to deeply understand the technology he's working on while remaining cognizant of the socio-technical components that may be a factor in any project. He's thorough, detail-oriented, and outcome-oriented, which means the solutions he architects, builds, and collaborates on come out better. Jack also strives to be at the forefront of new technology and assess how he can leverage it. Newer tech like GenAI can be complex and everevolving, and Jack is not one to back down but step up and embrace. He does all this with a strong team mentality, is a phenomenal team player, and can effectively delegate to help lift others' skill sets."
- Brandon Clifford, Director of DevOps, Kantata
- "Jack is a fantastic engineer always ready to **help solve problems and more importantly, teach you how to solve them**. He guided me and my team through a bunch of challenging GitOps situations with patience and kindness, leading by example. Always diligent with his work, willing to roll up his sleeves to get things done and **find creative solutions**, maybe tinkering in some kind of script that would make the manual processes easier and more resilient. Everyone would be lucky to have someone like him in their teams!"
- Cesar Palafox Garza, Principal Software Engineer, Kantata
- "Jack has had quite a profound impact on my career. As a young engineer, I was fortunate enough to work with Jack as my coach. He served as a great mentor, helping me build both technical and professional skills and forming me into the engineer that I am today. Throughout our time together, Jack was caring and invested in helping me set goals and develop my career. His mentorship was a key factor in elevating me from an incoming Junior Engineer to an Engineering Manager. Jack has a great curiosity and a strong set of technical capabilities that allow him to serve as a great example for others and a key contributor to any team!"
- Wesley Morlock, Engineering Manager, Kantata
- "Jack provided invaluable leadership as a Principal Software Engineer at Kantata. He was a powerful voice for the technology but made sure to **advocate for changes that were also certain to provide immediate impact to the customer**. I highly recommend Jack as an excellent dev ops engineer and as a technical leader."
- Nathan Perry, Principal Software Engineer, Kantata
- "Jack is talented both as a software developer and as an operations engineer. While working together in a Principal Engineer capacity, I saw how **passionate Jack is about helping his colleagues and his organization level up**. He is a great engineer with excellent leadership and organizational abilities."
- Jason Larsen, Software Engineering Manager, Kantata
- "Jack is a great co-worker. He is **awesome at understanding the direction teams need to go to make important improvements in Kantata's Engineering organization as a whole**. He has been instrumental in building and implementing strategies to upgrade Ruby, Rails, and React. If I had any questions about infrastructure and Kubernetes he would be able to answer and **provide solid explanations to the entire team.**"
- Justin Hurstwright, Principal Software Engineer, Kantata
- "Jack is a phenomenal resource to work with. He is **very knowledgeable about programming and cloud infrastructure** and is always eager to learn new things."
- Donovan Hubbard, Senior DevOps Engineer, Kantata
- "Jack has a flair for finding better, faster, and more reliable ways to get things done. He **advocates best practices, like unit testing, and has a deep knowledge of OO architecture**. Jack thinks on his toes, and will always be there with the team at 4 a.m. if circumstance requires it. :%s/average developers/developers like jack/g if you know what's good for you."
- *Greg Whitescarver, Founder, Mojave*
- "With Jack, **the more complex the problem, the more simple his solutions**. From eradicating dynamic php bugs to providing innovative javascript capabilities, Master Senechal is more than a mind to be reckoned with, he's an **integrative capacity builder** with a wide range of technological expertise. If there is anything that can be done through web development, Jack can figure out how to do it, and make it happen."
- Adam Apollo, Cofounder & CEO, Superluminal Systems