resume

Alex Nodeland

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Objective

Experienced engineer and mathematician with a strong background in high-performance computing, AI system design, and startup development. Proven track record in leading cross-functional teams and managing strategic business partnerships. Passionate about transforming complex ideas into user-friendly solutions, optimizing business processes, and driving innovation and growth. Seeking to leverage my technical and leadership skills to bring innovative AI products to market and drive impactful AI solutions.

Experience

Head of AI, Influize | Remote, NY | 2023 - 2024

Relevant Skills: AI System Design | Data Modeling | AI Pipeline Orchestration | Continuous Integration/Continuous Deployment

- **Pioneered the AI engineering department**, developing fully functional AI systems from conceptual models.
- **Developed and fully implemented RAG-based LLM systems**, enhancing the product's capabilities in generating dynamic responses based on retrieved data.
- **Enhanced data model clarity** by developing ontological models.
- **Improved database security and efficiency** by designing and implementing schema and backend infrastructure using Supabase Postgres.
- **Boosted system security and functionality** by building scalable AI pipelines with robust authentication.

- **Optimized AI pipeline performance** by implementing monitoring systems.
- **Increased API retrieval efficiency** by engineering a scalable API interface for AI pipelines.
- **Streamlined deployments and reliability** by implementing Infrastructure as Code (IaC) and establishing a CI/CD pipeline.
- **Ensured seamless platform integration** by collaborating with external development teams.
- **Streamlined development and coordination** by directing project management with GitHub's self-management system.
- **Boosted system responsiveness** by optimizing database performance for higher scale and efficiency.

Technical Strategy Consultant | Remote, NY | 2022 - Present

Relevant Skills: AI and LLM Consultation | Strategic Planning | Technology Adoption | Market Analysis

- **Enhanced operational flow** by providing strategic guidance to a blockchain unicorn.
- **Showcased AI potential** by delivering a keynote talk on ChatGPT to CIOs and founders.
- **Improved personal knowledge management systems** by advising on AI and LLM utilization.
- **Developed strategic plans** to keep companies at the forefront of technology.
- **Reduced costs and increased efficiency** by facilitating transitions to AI-integrated systems.
- **Advanced business processes** by engaging in AI research and development.
- **Identified AI solution opportunities** through comprehensive market analysis.
- **Supported startups** in technology selection and strategic decision-making.

Tech Lead, Musiio (acquired by SoundCloud) | Singapore | 2021 - 2022

Relevant Skills: Team Leadership | Agile Methodologies | Infrastructure Management | Workflow Automation

- **Led a cross-functional team**, fostering collaboration with the music team and external partners.
- **Streamlined development workflows**, managing scheduling and coordination with research and sales teams.
- **Fostered continuous improvement** by conducting operational analysis and organizing training sessions.

- **Mentored team members**, supporting career development and engagement.
- **Ensured effective project management** by collaborating with founders on development plans.
- **Guided technical development**, meeting customer and partner requirements.
- **Managed GCP infrastructure**, implementing Kubernetes & Istio and monitoring with Grafana & Prometheus.
- **Revamped CI/CD process** with Jenkins and Cypress, ensuring software quality.
- **Introduced agile practices** (Scrum) to streamline operations and increase productivity.
- **Improved efficiency** by implementing workflow automation and building a custom data ingestion pipeline.

CEO & Co-Founder, Archanan | Singapore, SG | 2018 - 2022

Relevant Skills: Strategic Business Planning | Fundraising | Product Development | Team Expansion

- **Drove strategic direction** by formulating business models and go-to-market strategies.
- **Provided critical business insights** by devising dynamic financial projections.
- **Ensured seamless workflows** by integrating management systems.
- **Solidified financial foundation** by securing early rounds of funding from government, VC, and angel investors.
- **Expanded client base** by attracting early customers, including Fortune 500 companies and national governments.
- **Brought products to market** by spearheading product development from conceptualization to launch.
- **Fostered rapid growth** by expanding the team from 3 to 15 in the first year.
- **Strengthened partnerships** by managing diplomatic relations with multiple levels of government.
- **Promoted customer loyalty** by establishing a strong brand identity.
- **Secured beneficial terms** by negotiating contracts and agreements with partners and suppliers.
- **Mitigated business risks** by implementing risk management strategies.
- **Maintained transparency** by steering investor relations and board communications.
- **Challenged traditional norms** by leveraging technical background to drive innovative solutions.

Founder in Residence, Entrepreneur First | Singapore, SG | Jan 2018 - Jun 2018

Relevant Skills: Market Research | Go-to-Market Strategy | Financial Modeling | Startup Formation

- **Optimized market fit** by refining early-stage ideas.
- **Validated business concepts** through comprehensive market research.
- **Catalyzed product development** by securing early LOIs and bringing MVPs to fruition.
- **Drove business growth** by formulating and implementing go-to-market strategies.
- **Provided key insights** through financial modeling to plan and predict business performance.
- **Initiated a successful venture** by co-founding Archanan.
- **Secured seed capital** by leading fundraising efforts.
- **Broadened network and resources** by forming strategic partnerships.
- **Strengthened market positioning** through business development initiatives.

CTO, Chief Mathematician, Scala Computing | New York, NY | 2016 - 2017

Relevant Skills: Fundraising | MVP Design | Software Development | Algorithm Development

- **Drove financial stability** by securing seed capital from prominent VCs and angels.
- **Elevated company status** by gaining membership to the Grand Central Tech Accelerator.
- **Fast-tracked product development** by designing, architecting, and implementing MVPs.
- **Ensured reliable software solutions** by developing, testing, and integrating production code.
- **Enhanced productivity and collaboration** by establishing robust development processes.
- **Improved software performance** by leading a team of developers in delivering cloud middleware solutions.
- **Advanced technological capabilities** by directing algorithm development for complex problems.
- **Ensured software quality** by establishing strict QA standards.
- **Minimized bugs** through efficient code review practices.
- **Enhanced client service offerings** by cultivating strong client relationships.

Artist in Residence, Center of Excellence in Wireless Information Technology | Stony Brook, NY | 2016 - 2017

Relevant Skills: Audio Synthesizer Design | Circuit Design | Artistic Content Generation | Industry Collaboration

- **Pioneered sound technology** by designing, prototyping, and testing audio synthesizers.
- **Contributed to novel audio technologies** by engineering unique circuit designs.
- **Generated creative content** using academic research.
- **Demystified complex concepts** through collaboration with music technology industry professionals.
- **Inspired creativity** by leading seminars on the intersection of music and mathematics.
- **Facilitated collaborative opportunities** by networking with industry professionals.

Researcher, SUNY Research Foundation | Stony Brook, NY | 2016 - 2017

Relevant Skills: Supercomputing | Signal Analysis | Audio Compression Research

- **Boosted research capabilities** by spearheading a supercomputing project funded by the High Performance Computing Consortium of New York.
- **Contributed to advancements in audio technology** by conducting in-depth research on optimal wavelet bases for audio compression.
- **Provided insights into spectrum trends** by performing real-time signal analysis.
- **Ensured up-to-date practices** by liaising with other research teams.
- **Maintained reliable data sources** by organizing and maintaining project documentation.

Assistant Product Engineer, Absara Audio | Port Jefferson, NY | 2014 - 2015

Relevant Skills: Firmware Development | Continuous Integration | Technical Documentation

- **Enhanced product functionality** by developing production-grade firmware for digital guitar pedals.
- **Ensured regular product improvements** by contributing to continuous integration and feature releases.
- **Simplified customer usage** by authoring technical documentation and user manuals.

- **Improved product quality** by optimizing processes to reduce software bugs.
- **Integrated customer feedback** into product development.
- **Ensured software quality** by implementing rigorous testing protocols.

Technician, Absara Audio | Port Jefferson, NY | 2010 - 2014

Relevant Skills: PCB Assembly | Hardware Testing | Customer Service | Hardware Servicing

- **Contributed to product manufacturing** by assembling printed circuit boards for audio processing units.
- **Guaranteed product reliability** by conducting rigorous hardware testing.
- **Ensured customer satisfaction** by managing servicing of customer hardware.
- **Maintained high service standards** by leading technical customer service efforts.
- **Optimized production processes** through continuous improvement initiatives.
- **Ensured quality standards** by providing training to new staff.
- **Contributed to customer service excellence** by handling returns and repairs.

Education

Doctor of Philosophy (Ph.D.), Computational Applied Mathematics | Stony Brook University, Stony Brook, NY | 2016 - (Incomplete)

Acquired Skills: Advanced computational techniques, complex problem-solving, project management, data-driven decision making

- Engaged in preliminary research but transitioned to entrepreneurial roles prior to advancing to candidacy.
- Applied research experience at the Center of Excellence in Wireless Information Technology (CEWIT) and SUNY Research Foundation, focusing on audio compression and signal analysis.
- Relevant coursework: Numerical Analysis, Numerical Partial Differential Equations, Numerical Linear Algebra, Data Analysis, Applied Real Analysis, Applied Complex Analysis, Parallel Computing.

Bachelor's Degree (BS), Applied Mathematics and Statistics | Stony Brook University, Stony Brook, NY | 2013 - 2015

Acquired Skills: Statistical modeling, data analysis, problem-solving

- Member of the University Scholars Program.

- Relevant coursework: Applied Real and Fourier Analysis, Computation Modeling of Physiological Systems, Discrete Mathematics, Modern Mathematics, Linear Algebra, Operations Research: Deterministic Models, Survey of Probability and Statistics, Research Practices in Biomedical Engineering, Modern Physics, Molecular and Organic Chemistry.

Certifications

- AWS Business Professional, Amazon Web Services, 2018
- AWS TCO and Cloud Economics, Amazon Web Services, 2018
- Responsible Conduct of Research in Engineering, CITI Program, 2017