

# Milo Knowles

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## WORK EXPERIENCE

<b>Roebling</b> – <i>AI-powered development and planning stack for industrial infrastructure</i> Co-Founder & Lead Software Engineer	Jun 2025 – Present
	Remote
<ul style="list-style-type: none"><li>Led early product development, platform architecture, and software team management</li><li>Designed and built an industrial process simulator, symbolic equation solver, no-code modeling environment, CAPEX/OPEX engine, and collaborative version control system.</li><li>Gained domain experience in chemical process simulation, financial modeling, and FEL for capital projects.</li><li>Stack: React, TypeScript, Tailwind, Python, FastAPI, PostgreSQL, Supabase, Vercel, Langchain, PyTorch, GCP</li></ul>	
<b>Fifty Years</b> – <i>Deep tech startup founder program</i>	May 2025 - August 2025
<ul style="list-style-type: none"><li>Validated 3 ideas across food &amp; agriculture, including a plant engineering &amp; trait discovery platform, automated greenhouse farming, and photosynthetic biomanufacturing using duckweed (Lemna).</li></ul>	
<b>Synonym</b> – <i>Biomanufacturing infrastructure and scale-up support</i> Senior Software Engineer	Apr 2024 – May 2025
	Remote
<ul style="list-style-type: none"><li>Architected and built Scaler, a process simulation and techno-economic assessment tool for biomanufacturing</li><li>Led product development from idea to first revenue. Delivered 4 projects to a F500 customer, made key engineering hires, and ran investor demos. Helped enable a Series A raise and spinout of <a href="#">Roebling</a> (see above).</li><li>Stack: React, TypeScript, Next.js, Python, FastAPI, PostgreSQL, Supabase, Vercel</li></ul>	
<b>Food for the Future</b> – <i>Carbon crediting for sustainable food</i> Co-Founder & CTO	Jan 2022 – Dec 2023
	Remote
<ul style="list-style-type: none"><li>Built a platform for tracking food emissions based on purchasing data and calculating user carbon footprints</li><li>Collaborated with Verra to develop a sustainable food methodology and funded 3 pilots at K-12 schools</li></ul>	
<b>Singularity Energy</b> – <i>Data platform for tracking grid emissions</i> Software Engineer	Feb 2022 – May 2023
	Somerville, MA
<ul style="list-style-type: none"><li>Led development of Singularity's grid forecasting product, data API, and customer-facing utility dashboards</li><li>Stack: React, TypeScript, Python, FastAPI, PostgreSQL, Terraform, AWS</li></ul>	
<b>Skydio, Optimus Ride, Adaviv, Kespry</b> – <i>Various robotics and computer vision companies</i> Software Intern – Autonomy / Perception	2018 – 2019
	Redwood City, CA / Boston, MA
<ul style="list-style-type: none"><li>Skydio: Developed the first prototype of the “3D Scan” product (C++/Python)</li><li>Optimus Ride: Developed computer vision tools to autogenerate lane and curb maps from LiDAR scans (C++)</li></ul>	

## EDUCATION

<b>Massachusetts Institute of Technology</b> MEng, Artificial Intelligence ( <a href="#">Paper</a> ) – <a href="#">Robust Robotics Group</a>	2019 – 2020
	Cambridge, MA
<b>Massachusetts Institute of Technology</b> Bachelor of Science, Computer Science	2015 – 2019
	Cambridge, MA

## CERTIFICATIONS, SKILLS & INTERESTS

- Languages:** Python, Typescript/JavaScript, C++, C#, R, MATLAB
- Web:** React/Next.js, Redux, Tailwind, FastAPI, PostgreSQL, Terraform, Supabase, Vercel, AWS, GCP
- AI/Robotics:** C++, PyTorch, OpenCV, ROS/LCM, GTSAM, Unity3D, PydanticAI
- Strengths:** Zero-to-one product ideation, multidisciplinary engineering, techno-economic modeling, navigating early-stage startup uncertainty. Broad experience across robotics, energy, agriculture, climate-tech, and biology.
- Interests:** Triathlon, Type 2 fun, [writing](#)