

JOHN ROSCA

Computer Science | Honors College | Mathematics Minor | AI Systems Builder

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4.0 GPA • Honors College • 2x Dean's List • AI Research • Multi-Tenant SaaS • Docker/Kubernetes

EDUCATION

Oregon State University

Corvallis, OR

Honors B.S. in Computer Science; Mathematics Minor; Honors College; GPA: 4.0

Jan. 2026 – Present

- Dean's List every completed semester; coursework includes discrete mathematics, calculus, CS fundamentals, and systems programming.
- Ongoing classes include Linear Algebra, Data Structures, and Web Development

University of Calgary, Haskayne School of Business

Calgary, AB

Bachelor of Commerce, Finance

2019 – 2023

RESEARCH

Honors Thesis Research | Quantitative Analysis, LLM Evaluation, Simulation Systems

2026 – Present

- Developing an Honors thesis comparing quantitative frameworks, human decisions, human+AI workflows, and AI-first systems under shared historical evaluation.
- Designing simulation infrastructure to evaluate decades of market behavior across decision frameworks, regimes, and performance metrics.
- Combines applied mathematics, machine learning systems, financial metrics, LLM evaluation, and large-scale backtesting methodology.

FLAGSHIP PROJECT

Agentic CRM | FastAPI, React, TypeScript, PostgreSQL, Redis, Docker, Kubernetes, OAuth, Stripe

2026 – Present

- Built a production-oriented, multi-tenant AI CRM with 120+ routes across auth, workspaces, CRM entities, email sync, AI actions, billing, and admin.
- Implemented Gmail OAuth, read-only inbox sync, email import, and AI SuggestedActions that propose CRM updates behind explicit human approval.
- Designed linked action execution so approved AI packages create and connect companies, contacts, deals, tasks, and interactions with workspace isolation.
- Built security controls including JWT/session auth, CSRF, RBAC, workspace-scoped access, token encryption, and production fail-fast configuration.
- Containerized with Docker and designed deployment around PostgreSQL, Redis workers, and Kubernetes/k3s-ready infrastructure.

ADDITIONAL PROJECTS

Computer Vision Construction Estimator | FastAPI, React, PDF Processing, AI/Vision Workflows

2026 – Present

- Building an AI-assisted construction estimation platform for plan review, measurement extraction, and takeoff workflow automation.
- Designed around a real construction business use case targeting six-figure annual efficiency gains by reducing manual estimator workload and rework.

EXPERIENCE

Marketing Manager

Apr. 2025 – Present

Northern Fortress

Calgary, AB

- Lead digital strategy across four Shopify-based e-commerce sites, combining custom coding, SEO, campaign management, and business operations in a fast-moving small-business environment.
- Translate customer workflows and operational bottlenecks into technical improvements across websites, product data, sales processes, and internal tooling.

Account Executive

Sep. 2021 – Mar. 2023

Renoworks Software

Calgary, AB

- Worked with senior stakeholders across B2B software accounts; used CRM systems to manage pipeline, requirements, stakeholder communication, and post-sale client context.
- Identified an underserved contractor segment and proposed a scalable white-label version of visualization software, connecting customer discovery with product strategy.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, C, Java | **Frontend:** React, Next.js, Vite, Tailwind

Backend/Security: FastAPI, SQLAlchemy, Alembic, REST APIs, OAuth, JWT/session auth, RBAC, CSRF

Data/AI/Infra: PostgreSQL, Redis, Pandas, NumPy, LLM workflows, Docker, Kubernetes/k3s, Linux, Git