

Ian Kinsella

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EDUCATION

University of Washington, Seattle, WA Sep 2023 - Dec 2026

- *BS in Electrical and Computer Engineering, Minor in Mathematical Physics, 3.78/4.0 GPA*
- *Relevant Coursework:* Electromagnetics, Photonics, Quantum Mechanics, Computer Architecture, Digital Logic Design, C/Python/Java, Semiconductor Devices

TECHNICAL SKILLS

- *Computer Languages:* Python, C/C++, System Verilog, MATLAB, Java
- *Tools:* Tidy3d, Ansys Lumerical, COMSOL, Github, Linux, CAD, LTSpice, FreeRTOS
- *Skills:* Photonics Design, Optics Laboratory, Embedded Systems, FPGA, Signal Processing, Electronics Laboratory

WORK EXPERIENCE

Max-Planck-Institute for the Physics of Light, *Physicist*, Erlangen, Germany June 2026 - Sep 2026

- Performed high-resolution spectroscopy on single molecules at cryogenic temperatures
- Rigorously prepared samples of novel molecular species to be used as coupled quantum emitters
- Assisted with design of new optical setup to be used in cryogenic cavity experiments

Accenture on assignment at Meta, *Silicon Embedded Software Analyst*, Seattle, WA June 2025 - Aug 2025

- Developed firmware for power management, boot loaders, and RTOS implementations
- Created OS custom kernel drivers and APIs for hardware accelerators
- Supported all phases of SoC development, including architecture, implementation, and verification

Scalable Quantum Research Lab, *Photonics Researcher*, Seattle, WA March 2025 - Present

- Design novel silicon photonics components using inverse design in Tidy3d
- Assemble and calibrate a variety of bulk optics setups
- Use Python to evaluate 100s of Gigabytes of simulation data

Booz Allen Hamilton, *Simulation Engineer*, Seattle, WA January 2026 – June 2026

- Developed a realistic sonar simulation in Unity to generate sonar images for image recognition model training
- Trained YOLOV11 image recognition model and improved accuracy with generated images
- Won second place in University of Washington Electrical Engineering Department Capstone

LEADERSHIP EXPERIENCE & PROJECTS

Information Consulting Group - Micron, *Software Co-Director*, Seattle, WA Sep 2025 - June 2026

- Lead weekly meetings with consultant team
- Organize and lead meetings with industry clients
- Serve as liaison between engineering team and industry client
- Design and lead skill building workshops

Photon Flow, *Independent Project* March 2025 - June 2025

- Developed a cycle accurate simulator for a photonic network on chip using System Verilog

RISCV CPU, *Independent Project* January 2025 - March 2025

- Developed with System Verilog a RISCV CPU capable of running arbitrarily complex C programs

Notepad--, *Independent Project* June 2024 - August 2024

- Solo developer of Notepad--, a text editor written entirely in C

PUBLICATIONS

<https://www.mdpi.com/2813-4168/3/2/16>