

John Kim

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EDUCATION

University of Virginia <i>B.S. in Computer Science, School of Engineering and Applied Sciences</i>	Charlottesville, VA Aug. 2025 – Present
Thomas Jefferson High School for Science and Technology <i>Advanced Studies Diploma</i>	Alexandria, VA Aug. 2021 – Jun. 2025

• GPA: 4.0/4.0

• GPA: 4.463/4.0; Relevant APs: CS A (5), Calculus BC (5), Physics (5 Mechanics, 5 E&M), Chemistry (5)

• Other Courses: AI 1 & 2, ML 1 & 2, Web & Mobile App Development, Multivariable Calculus, Linear Algebra

EXPERIENCE

Researcher — ML@UVA × Johns Hopkins APL <i>University of Virginia</i>	Sep. 2025 – Present Charlottesville, VA
• Explored the strategy game <i>Diplomacy</i> to study human-aligned decision-making in LLM agents	
• Investigated methods for aligning AI decisions with human behavior distributions using fine-tuning	
• Experimented with steering vectors and prompting techniques to mimic distinct human playstyles	
Full Stack Developer Intern <i>MySmaX Lab (AIoT Startup), Seoul National University</i>	Jun. 2025 – Aug. 2025 Seoul, South Korea
• Built and deployed an AI agent to automate IoT workflows with Model Context Protocol (MCP)	
• Applied machine learning-based anomaly detection to analyze IoT device data	
• Served as a primary contributor to MySmaX's user-facing production website using Next.js	
Competitive Programming & Mathematics <i>Clubs & Competitions</i>	2021 – Present Charlottesville, VA
• USACO Gold Division	
• American Invitational Mathematics Examination Qualifier (4x)	
• Active member of the Putnam Club and ICPC Club at UVA; former TJ Varsity Math Team member	
• Jane Street Estimathon Winner in 2024, 2025	

PROJECTS

Alpine Ski Racing AI Analysis Model (GitHub) <i>Python, YOLO, PyTorch, CNNs</i>	Aug. 2024 – May 2025
• Built a deep neural network using CNNs to give ski racers quantitative feedback from a video	
• Used computer vision models to analyze videos and extract skiers' pose data	
• Achieved results that consistently aligned with real race performances	
Offline AI Model for North Korea (Website) <i>Python, LangChain, HuggingFace, Unsloth</i>	Jun. 2024 – May 2025
• Researched secure ways for distributing reliable information in North Korea	
• Developed an offline generative AI solution by fine-tuning existing LLMs	
• Received a \$7,500 grant from the Human Rights Foundation recognizing innovation and potential social impact	

TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript, TypeScript, HTML, CSS
Frameworks: React, Next.js, Django, Tailwind CSS, MCP, FastAPI
Developer Tools: Git, Docker, Linux Shell, Jira, AWS
Libraries: PyTorch, TensorFlow, pandas, LangChain, HuggingFace, Agno, Unsloth

LANGUAGES & OTHER

Languages: English (Native), Korean (Native), Latin (Advanced Prose & Poetry)
Other: Alpine ski racer; certified junior ski coach