

Raphael Kim

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M.Sc. Interactive & Industrial Design
M.Sc. Immersive Engineering
M.Sc. Numerical Modelling (VR)
ENS Diploma Mechanical Engineering

Software Engineer (AI Systems)

profile

Software engineer building real-time AI-powered systems used in interactive contexts (voice, IoT, physical environments).

Focused on end-to-end systems: from local inference and backend orchestration to user-facing interaction.

Experience at Snips / Sonos on production voice systems. Currently developing self-hosted AI systems integrating local models, real-time pipelines and multimodal interaction.

AI systems engineering

- Built and deployed AI systems enabling real-time interaction between users and physical environments (voice, lighting, IoT)
- Designed real-time AI pipelines powering interactive voice systems (user recognition → STT → LLM → Memory → TTS)
- Developed orchestration systems integrating AI into user workflows and multimodal interfaces
- Operate self-hosted AI infrastructure (GPU nodes, local LLMs, networking, monitoring)

work experience

2019	Snips / Sonos Senior Voice Experience Technologist <ul style="list-style-type: none">• Prototyped and shipped voice interaction systems used in production environments• Worked on system architecture for real-time voice interaction (latency, reliability, UX)• Contributed to Sonos Voice Control product definition• Explored alternative interaction models for voice interfaces	Paris, FRANCE
2018	Snips Hacker in Residence <ul style="list-style-type: none">• Built 20 functional prototypes exploring interaction systems• Worked on voice and post-voice interaction paradigms	Paris, FRANCE
2017	Dailymotion Design Systems Technologist <ul style="list-style-type: none">• Built the design system and tools such as interface translation in Sketch• Worked on interface population and DesignOps tooling• Explored new possible features, interactions, and devices	Paris, FRANCE
2015	Joshfire Lead Developer R&D / in charge of innovation <ul style="list-style-type: none">• Built IoT systems and distributed device architectures• Developed hardware/software systems integrating backend services• Led innovation projects delivering interactive systems for real-world usage	Paris, FRANCE
2014	SAP Lab Innovation Prototyper <ul style="list-style-type: none">• Built an interactive collaboration tool for real-time screen sharing and meetings• This prototype evolved into CoScreen, later acquired by Datadog	Palo Alto, USA
2013	Saatchi & Saatchi + Duke Creative Technologist <ul style="list-style-type: none">• Developed prototypes for Toyota, ClubMed, VISA Premier, Veuve Clicquot, and Piaget	Paris, FRANCE

2012	Publications	Austin/Laval
	<ul style="list-style-type: none"> • SIGCHI 2012 / LAVAL VIRTUAL 2012 • SPRayCE publications on Intel & Vice CreativeProjects / PFSK 	
2011	M.I.T Media Lab Fluid Interface Group Internship	Cambridge, USA
	<ul style="list-style-type: none"> • Creation of SPRayCE (Space Spray), a spray-based device allowing drawing in mid-air 	
2010	JRL-AIST Internship	Tsukuba, JAPAN
	<ul style="list-style-type: none"> • Non-smooth contact model for fast dynamic computation of poly-articulated bodies • Handled haptic devices for dynamic simulation • Final demonstrator of the European Commission project "ImmerSense" 	

education

2011	– STRATE COLLEGE DESIGNER	Sèvres, FRANCE
2013	(master degree) industrial / interaction design <ul style="list-style-type: none"> • interactive design • video production / realisation / post-production • desktop publishing (Illustrator, Photoshop, Indesign) • arduino project and development of interactive systems • packaging and retail design 	
2010	– ECOLE NATIONALE SUPÉRIEURE DES ARTS ET MÉTIERS	Laval, FRANCE
2011	(master degree) innovation and virtual reality engineering (master degree) numerical modelisation in virtual reality <ul style="list-style-type: none"> • virtual reality / augmented reality • devices for virtual reality and haptics • 3D modeling and animation • real-time 3D and video games • human computer interaction • conducting innovative projects management 	
2008	– ECOLE NORMALE SUPÉRIEURE	Cachan, FRANCE
2010	(master degree) mechanical engineer <ul style="list-style-type: none"> • modelisation of solid and fluid continua • CAD and PLM • vibrations and waves • numerical methods for PDEs • material sciences • discrete event systems • design and dimensioning for mechanical transmissions • command in manufacturing systems • numerical resolution methods • fluid dynamics • prototyping industrial products 	

extras

- technology enthusiast, maker
- Python, objective-c, nodejs, web-dev, mongodb, fusion360, 3DS max, PCB making, unity3D, Ollama
- DIY homelab: local AI models, GPU nodes storage, observability brain, voice orchestration experiments
- voice assistant prototype combining lighting control with live storytelling
- DIY electronics, IoT, robot arm, 3D print
- music composition and experimental instruments
- photography / computer generated art
- fluent French / speaking and writing English / native Korean