

JUNSEOK KANG

Software Engineer, Project Manager

CONTACT

jkang@g.harvard.edu
781-975-9059

WEBSITE

portfolio.organictechs.com

EDUCATION

Harvard University

Cambridge, MA

Masters in Computational Science and Engineering
Dec 2026

Olin College of Engineering

Needham, MA

Bachelor in Engineering with Computing
May 2023

I am an experienced software engineer with a demonstrated history of working in the computer software industry. Skilled in Computer Science, Data Mining and Manipulation, Modeling, Machine Learning and Back-end programming. I am a strong engineering professional with a Bachelor's degree focused in Engineering with Computing from the Franklin W. Olin College of Engineering.

WORK EXPERIENCE

US Army, Second Infantry Division

Pyeongtak, Korea

09.2024 – 03.2026

KATUSA Sergeant, Office of Staff Judge Advocate

Served as a KATUSA Soldier in the 8th Army, 2nd Infantry Division in the Office of Staff Judge Advocate. Translated cases and in court.

Symbotic

Wilmington, MA

05.2024 – 09.2024

Software Engineering Intern

Worked on the TeleOperations team, adding new and improving features to the existing, deprecated system using Python, PyQt and Internal Engines.

Researched potential implementations for better debugging options with BehaviorTrees in core application software of the robotics using cpp.

ii:eum education

Seoul, South Korea

02.2022 – 09.2023

Co-founder & Project Manager

Co-founded a non-profit organization in the field of English Education in Korea, providing platforms to connect underprivileged children to international school students

Leading a team of software engineers as head software developer and project manager, using Jira as a planning tool for developing the website

Developed a website with functionalities such as stream-sharing and personal notebooks, as well as scheduling methods using Python Django, SQL and HTML/CSS

Senior Capstone: Amazon Robotics

Needham, MA

09.2022 – 05.2023

Software Engineer & Project Manager

Working as a Project Manager and Software Engineer on the SCOPE team of Amazon Robotics at Olin College of Engineering

Microsoft

Acton, MA

05.2022 – 09.2022

Software Engineering Intern

Worked on a system to parse and convert existing data files to human readable analytic reports on the performance analytic data from 4G/5G performance metrics using Python, Jenkins and Kusto

Developed methods to verify the integrity of data provided by internal infrastructure using Python

Created a report-generating tool that outputs interactive html files that contain a formatted and presentable data analytic information using the plotly library

Motivo Engineering

Gardena, CA

12.2021 – 01.2022

Software Engineering Intern

Replaced the core API that drives the company's timekeeping tool using REST, XML and SOAP Connections and integrated new functions that improves the efficiency of viewing statistics of user data

Verve Motion
Cambridge, MA

09.2021 – 12.2021

Software Engineering Intern

Created data analytic page linked with Google Firestore in the internal website with various functions such as automatic pdf generation and email sending using JS, JQuery and HTML

Developed a data transferring tool to compress and upload non-duplicate and time sensitive data to google cloud storage from the company's local gateways using Python

Developed data analytic tools including data extracting modules from excel files and data integration with firebase, as well as multiple data visualization tools with sqlite and Python

SummerBio
Menlo Park, CA

06.2022 – 09.2021

Automation Engineering Intern

Developed software modules in automated throughput for Covid-19 PCR testing using C/WPF

Developed Image Processing Modules for decapper error detection and barcode reading with .NET/C and Winforms, Python and CUDA cores

Developed a website with functionalities such as stream-sharing and personal notebooks, as well as scheduling methods using Python Django, SQL and HTML/CSS

Olin College of Engineering
Needham, MA

01.2021 – 06.2021

Software Design Teaching Assistant

Teaching assistant at Olin College of Engineering in Software Design (ENGR2510)

Taught students basics of coding and logic, code management, version control and other basics of becoming a developer using Python as the main language

Purgo Biologics
Seoul, South Korea

03.2020 – 12.2020

Full Stack Developer

Created and deployed web application with full security measures based on Python flask, HTML, CSS, JS and ubuntu server management to assist salespeople with their current sales revenue compared to prior month and provided data on possible focus in certain customers for future reference

Provided categorization to company's customers in terms of potential sales quantity and level of potential purchase rates based on their data using machine learning and data analysis techniques in Python

Produced web application based on Python flask and ubuntu server management on subject of product subsidiary stock management and data visualization for product shipping and manufacturing

Built program aimed at estimating total number of each individual subsidiaries needed for certain number of final product using Python and SQL

RESEARCH EXPERIENCE

Olin College of Engineering
Needham, MA

09.2022 – Current

Data Analytic Researcher, with Professor Paul Ruvolo

Constructed a system that allows data evaluation and integrity testing for geospatial location plots and cloud anchors for navigation applications for the blind with professor Paul Ruvolo and the OCCAM Lab at Olin College of Engineering

01.2021 – 06.2021

Data Management Researcher, with Professor Scott Hersey

Created and managed database to contain SWIM Flight Data for tracking and managing anomalies and patterns

Developed internal software to automatically collect, parse, and filter data from source and stream data points into the server for integration.

Performed data analysis research on FAA flight data and pollutant levels near Boston Logan International Airport

Worked on discovering trends and patterns to come up with methods that would view what correlation flights and air pollutions have on a visual level

Olin College of Engineering
Needham, MA

06.2020 – 11.2020

**Cryptocurrency Data Researcher,
with Professor Stephanos Matsumoto**

Worked full time as a researcher on the topic of gas consumption and its efficiency in etherium cryptocurrency with Professor Stephanos Matsumoto at Olin College of Engineering

Used multiple data analysis techniques with Python and R to uncover interesting user traits when dealing with faulty transactions, as well as general trends of usage in relation to input of users

Dongkuk University
Jongno, South Korea

06.2018 – 07.2018

**ML and Image Processing Researcher,
with Professor Donghwan Kim**

Research and development on image processing and machine learning on 3D particles using MATLAB and fourier transformations.

Studied methods of error detection in hue and color saturation using computer vision using OpenCV

Published a research article on AMS based on a prototype created in a private company that detects particles and their defects.

PUBLICATIONS

Braden Oh, Vedaant Kuchhal, Junseok Kang et al. "Solving Double Execution of Java's paint() Method by Counting Down to the Heat Death of the Universe," SIGBOVIK, Apr. 3, 2022

Kang, Junseok and Richard Kyung, "Study on the Resolution of Digital Image Using Computational and Mathematical Analysis," American Mathematical Society, Nov. 3, 2018, 1142-68-245.

HONORS AND AWARDS

Commandant's List

2024

Top 10 percent of class at the Eighth Army Wightman NCO Academy

Scholarship Recipient

2019

Olin College of Engineering Tuition Scholarship, valued at \$110,000

**Excellency Award,
Tournament Champion**

2018

VEX Robotics National Championship

Excellency Award

2017

Korea Core/Seoul Metropolitan Council Award for translating text on independence martyrs in Korea to raise awareness

PROFESSIONAL AFFILIATIONS

United Nations

2019

Translator for the 66th UN DPI NGO Conference in South Korea

SERVICE AND LEADERSHIP

PowerChords, President

2019 – Current

Led and served the only A Capella group in Olin College of Engineering. Performed multiple shows on and off campus. Participated in ICCAs as a team.

VEX Robotics, Lead Programmer

2018 – 2019

Led and programmed robot for team 6724B, based in Seoul, Korea. Ranked 1st Nationwide twice, with numerous awards in regionals and nationals.

Nanu Lee Orphanage Cooking Volunteer, Co-Chef

2015 – 2019

Cooked and distributed food for 4 different orphanages every month, each with about 100-200 kids.

Korea CORE Volunteer Team, Translator

2016 – 2017

Translated for a book about Korea's unknown national heroes who participated in resistance from Japan in the 1930-40s.

PROFESSIONAL TRAINING

MTA 98-381 Python Programming Certification

Microsoft, 2021

Certified Lifeguard

YMCA, 2019

Bilingual Diploma

International Baccalaureate, 2019

Oracle Certified Professional Java SE 6 Programmer

Oracle, 2017

LANGUAGES

Korean (Native)
English (Native)
Japanese (Intermediate)

COMPUTER SKILLS

Languages
Python, SQL, HTML, CSS, JS, ReactJS, PHP, Flask,
MATLAB, Java, C, Golang, Ocaml, LaTeX