James Kong

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EDUCATION

Brandeis University <div align="right">Waltham, MA</div>

Master of Science in Computer Science (MS) <div align="right">Aug. 2024 – May. 2025</div>

Bachelor of Science in Computer Science (BS), Minor in Business <div align="right">Aug. 2020 – May. 2024</div>

EXPERIENCE

Graduate Head Teaching Assistant - Intro to Problem Solving in Python — Aug. 2024 – Dec. 2024
Brandeis University — *Waltham, MA*
- Lead bi-weekly recitations and weekly office hours for 70 students, reinforcing Python programming concepts
- Supervise the grading process and coordinate exams to ensure fairness and accuracy

IT Technician Level II — Nov. 2022 – May. 2024
Brandeis University — *Waltham, MA*
- Delivered comprehensive on-site and virtual technical support to clients, managing up to 350 tickets per week
- Promptly tracked and resolved tickets using Jira with a 85% ticket resolution rate under 48 hours
- Facilitated the repair and re-imaging of staff and student devices, optimizing system performances

Software Engineer Intern — May. 2023 – Aug. 2023
Zebra Technologies — *Dedham, MA*
- Developed a machine learning prototype interface for payroll anomaly detection using the Isolation Forest algorithm in Python, analyzing over 5.4k transactions from an IBM Db2 database streamlined by optimized SQL queries
- Automated API documentation according to OpenAPI specifications, reducing documentation time by 60% through custom Gradle tasks and plugins
- Refactored Punch API and wrote extensive unit tests using JUnit and Mockito, achieving a test coverage of 95% across all Punch service and method classes

Lead Mobile App Developer — Apr. 2022 – Jul. 2023
Branda — *Waltham, MA*
- Oversaw a team of 15 student developers on a React Native mobile app used by over 1.6k users daily
- Increased code efficiency by integrating new API routes and configurations into the backend, enhancing scalability and reducing response times by 30% during peak usage periods
- Improved user experience on frontend by implementing a chat bot, revamping the hours page to auto-refresh, adding dark maps to shuttle tracking tab, and fixing miscellaneous bugs

PROJECTS

AI Call Agent | *Python, FastAPI, Twilio, Pipecat, OpenAI/Ollama, Deepgram, Cartesia/Piper, Ngrok* — May. 2025
- Developed an AI call agent to manage simulated patient intake over phone calls
- Orchestrated conversational flows for gathering patient data, medical complaints, and simulating appointments
- Integrated address validation via Smarty API and automated email confirmations for appointment details

Home Gym App (Apple SSC Winner) | *SwiftUI, Vision, AVCaptureSession, Charts* — Jan. 2025 - Feb. 2025
- Built a native iOS/iPadOS fitness app using computer vision to track exercise form and count reps for 12 exercises
- Designed progress-tracking visuals with trend analytics and voice guidance system to improve user engagement
- Developed an achievement system with badges and customizable goals to motivate and reward user progress

Movie Portfolio Website | *HTML, CSS, Express.js, Javascript, Heroku, MongoDB* — Jun. 2022
- Designed and deployed a portfolio website for a friend showcasing his films, animations, blog posts
- Included an admin login system to edit post titles and descriptions, add new posts, delete old posts
- Utilized a MongoDB database for storing post links and descriptions

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, Swift, HTML/CSS, SQL, Groovy
Frameworks: React, React Native, Flask, FastAPI, Express.js, Expo, JUnit, Pytest, Mockito, Java Swing, SwiftUI
Tools: Git, Jira, Shell, npm, Yarn, Node.js, Heroku, Confluence, VS Code, Xcode, PyCharm, IntelliJ, Eclipse
Libraries: pandas, NumPy, Pygame, scikit-learn, D3.js, Matplotlib, Selenium