DIVYANSH SINGH

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EDUCATION

New York University (NYU)   **Sep 2024 - May 2026**
Master of Science in Computer Science – GPA: 4.0/4.0
- Awardee of Academic Scholarship by NYU for 2 years; merit-based award

The University of Hong Kong (HKU)   **Sep 2016 - Jun 2020**
Bachelor of Engineering in Computer Science & Minor in Information Systems – CGPA: 3.61/4.30 (First-class honors)
- Dean's Honors List for academic year 2016-2017 & 2018-2019
- Won silver medal for HKU at ACM ICPC Qingdao Regional as part of the HKU programming team in the East Asia Continent Finals in Shanghai (2017)

TECHNICAL SKILLS

- Programming Languages: JavaScript, Python, Scala, C++, Java
- Frameworks: React.js, Vue.js, Node.js, SQL, Postgres, MongoDB, Apache Spark, Hadoop
- Development Tools: AWS (ECS, S3, SQS), Docker, Unix, Postman, Auth0, Git, Kubernetes, Terraform

PROFESSIONAL EXPERIENCE

KM.ON by Karl Mayer   **Jan 2023 – July 2024**
Full Stack Developer
- Implemented PKI, an industry standard for IoT, to authenticate and authorize textile machinery – a novel technology application in the textile machine domain that enables the digitization of >70% Karl Mayer machines
- Identified UX issue causing active user logouts upon token expiry and implemented an automatic token refresh mechanism across all micro-frontend apps, enhancing UX and fortifying platform security
- Mentored a graduate intern to build, integrate and deploy a full stack micro-frontend app for their final year thesis

Raspect Intelligence Inspection Limited
Senior Software Developer, R&D Department   **Dec 2021 – Dec 2022**
- Enabled productization of 2D to 3D position mapping into the firm's proprietary product for infrastructure defect identification, thereby increasing revenue from all clients to 3x
- Optimized localization engine using parallelization and caching techniques, improving runtime efficiency by ~100% while reducing compute costs by 55%
- Worked with computer vision techniques such as optical flow, sift feature tracking and custom detectors

Software Developer, Software Department   **Aug 2020 – Nov 2021**
Lead System Architect for road monitoring system consulting project worth 2.3 million HKD
- Engineered a high-throughput, scalable system to capture and process 4K video; implementing real-time blurring of faces and license plates, and enabling 10cm geo-tagging accuracy on device
- Researched and implemented novel solution to rectify error in camera or GPS calibration using April tags and calibration banners, allowing drivers of survey vehicles to operate the system without technical knowledge
- Enabled remote annotation for internal datasets by securely hosting and maintaining CVAT in house to allow for faster dataset generation; increased datasets generation by 2.5x while bringing down cost by 70%

Nomura International Hong Kong Limited   **Jun 2019 - Aug 2019**
IT Analyst (Internship)
- Developed a chatbot using NLP in Python to automate financial account settlement workflow and cash balance inquiry, increasing process efficiency by ~66% and turnaround time by ~90%
- Evaluated and built an Alteryx based solution to automate the generation of regulatory reports sent to the Malaysian entity, enabling the business team to run the process without IT involvement

PROJECTS & AWARDS

- **GeoPi Network Testbed, 2022** - Deployed a distributed Raspberry Pi cluster for networking and side projects, using CF Tunnels for remote access, with real-time monitoring and notifications managed by dedicated tools
- **InnoIris, 2020** - Developed application to detect hardware tools in labs using ML models such as YOLO & Faster RCNN; improved application performance by generating additional datasets using CV techniques on video streams
- **CodeXpress Myanmar, 2018** - Built a smart farming IoT device for digital soil monitoring; led a team of 2 to analyze data, resulting in an estimated 30% reduction in water usage
- **Committee Member "Hult Prize" HKU Chapter 2018** - Launched a global social entrepreneurship challenge
- **HKU X ISA Open Data Hackathon, 2017** - Won 3rd prize for developing a prototype app that warns users of common crimes in the area using open data
- **Shanghai Commercial Bank Hackathon -** pitched solution for credit scoring problem; won HK$20,000 award