

HARISH NAVNIT

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EXPERIENCE

Imperial Research and Innovation | *Software Research Engineer*
Imperial College London's interdisciplinary research centre in NUS, Singapore.

Apr. 2025 – Present

- Engineering AI-first solutions for novel research approaches in the field of **Cybersecurity & Healthcare**.
- Leading the engineering and product development for
 - * A telephonic Montreal Cognitive Assessment (MoCA) tool for patients using conversational AI agents.
 - * An end-to-end automated pen-testing platform for medical devices and hospital networks using agentic coding tools and MCP servers.

Dialpad | *Software Engineer*

Aug. 2021 – Sept. 2023

- Developed strategic microservice integrations in **Python & Vue.js**, deployed on the Google Cloud Platform(GCP).
- Delivered \$700k additional revenue/Q across Salesforce, Hubspot, Zendesk & Servicenow integrations.
- Implemented bespoke customer requests & provided rotational on-call support to reduce churn significantly.
- Drove engineering productivity efforts within the integrations team.
 - * Enabling self-hosted integrations on the Dialpad platform.
 - * Set up behaviour driven tests infrastructure for backend components.
 - * Transitioned **CI/CD** workflows to Github Actions and automated weekly beta releases.

ColorTokens | *Member of technical staff*

Jan. 2020 – Aug. 2021

- Implemented the architectural re-design of XShield, an enterprise **micro-segmentation** platform, by migrating from a monolith to a **micro-service** based design.
- Prototyped, built & maintained **Python/Flask** micro-services for discovery and real-time monitoring of customer assets on public clouds, viz **AWS** and **Azure**, forming a robust *Cloud Security Posture Management(CSPM)* offering. Further developed,
 - * an interval based polling mechanism for asset discovery.
 - * a real-time event ingestion pipeline for platform events using serverless(**AWS Lambda**) functions and custom webhooks.
 - * Infrastructure-as-Code(**IaC**) policies using Cloud Custodian to facilitate policy enforcement & compliance.

Anapi | *Senior Software Engineer*

Aug. 2018 – Sept. 2019

- Joined as the first engineer, responsible for maintaining and releasing all software offerings.
- Responsible for hiring, onboarding and mentoring junior engineers.
- Designed a robust digital insurance **API** using **Node.js** deployed via **Docker** builds to **AWS**, to help online businesses enable on-demand protection through appropriate insurance products.
- Architected bulk policy purchase and claims ingestion pipelines, ensuring **data sanitization** for regulatory and auditory compliance.

Spectral Insights (acq. Evident Scientific) | *Software Engineer*

Mar. 2017 – Jun. 2018

- Integrated software components of a medical whole slide scanning device, viz. a **C++** image processing pipeline, **PyQt** GUI for hardware interface and **Django** cloud service.
- Maintained a **Python** cloud interface to publish the derived analytics for a pathology slide scan.

INTERNSHIPS

Google Summer of Code | tiny.cc/gsoc-16

Jun. 2016 - Sept. 2016

- Reworked KDE Plasma's legacy public transport applet written in **C++/Qt** to provide a convergent UI across devices of varying form factors.

Google Summer of Code | tiny.cc/gsoc-15

Jun. 2015 - Sept. 2015

- Ported Kopete, a multi-protocol instant messaging client, from **C++/Qt** (Qt4) to the newer **QtQuick 2.0** based KDE frameworks 5 API.

PROJECTS

OpenCtx openctx.org	<i>LLM, Typescript, VSCode extension</i>
<ul style="list-style-type: none">Implemented an <i>LLM</i> context provider for <u>Sourcegraph Cody</u>, which allows it to view <u>Semgrep</u> findings for a project and respond to user queries appropriately.Demo: youtu.be/Cm_9QGrbMdA	
Mazure github.com/tinvaan/mazure	<i>Azure, Mocks, Python, Testing</i>
<ul style="list-style-type: none">A stateful and dynamic <i>Python</i> library that enables easy mocking of Azure API calls in unit tests.Supports <i>function decorators</i> and <i>context manager</i> modes of usage.Demo: youtu.be/WCLCNlima0M	
ASR Metrics github.com/ImperialGlobalSingapore/asrmetrics	<i>NLTK, OpenAI Whisper, Typescript, Python</i>
<ul style="list-style-type: none">Automatic Speech Recognition (ASR) dashboard, with speaker diarization support, interactive transcripts editor and detailed evaluation metrics.	
Postag github.com/tinvaan/postag	<i>AIS, AWS, NMEA, Python</i>
<ul style="list-style-type: none">Generates a deployable AWS lambda function for Satellite AIS message tagging.	
UAV Mapper github.com/tinvaan/qtquick-mapview	<i>C++/Qt, QML, CMake</i>
<ul style="list-style-type: none">Simulates a linear interpolated flight path for a UAV from available flight data on a <i>QML</i> mapview.	
Drone CI SDK github.com/tinvaan/drone-python	<i>Automation, CI/CD, Python</i>
<ul style="list-style-type: none">Python client for the <u>Drone CI</u> public API.	
Dialpad Python SDK github.com/dialpad/dialpad-python-sdk	<i>Python, Swagger, OpenAPI</i>
<ul style="list-style-type: none">Ported the project to Python3 & bumped test coverage up to 100%.	

CONFERENCES AND TECHNICAL PRESENTATIONS

conf.kde.in tiny.cc/kde-cmake	<i>IIT Guwahati, 2020</i>
Hosted a workshop on " <i>Introduction to CMake</i> "	
FOSSASIA summit youtu.be/Df9hFzZl7Tc	<i>Singapore, 2018</i>
Delivered a presentation on " <i>Convergent applications using the Kirigami UI framework</i> " introducing a modern C++/Qt framework for responsive and cross-device UI designs.	
KDE developer sprints	<i>Switzerland, 2015 - 2017</i>
<ul style="list-style-type: none">Invited to participate in the Randa Meetings randa-meetings.chInvited to the inaugural WikiToLearn & KDE developer's sprint held at the IdeaSquare lab at CERN	

EDUCATION

Singapore University of Technology and Design	<i>2023 - 2024 4.2/5.0</i>
<i>Master of Science in Technology and Design (Cybersecurity)</i>	<i>Top of batch</i>
Amrita School of Engineering	<i>2012 - 2016 3.6/5.0</i>
<i>Bachelor of Technology in Computer Science and Engineering</i>	

SKILLS

Languages: C, C++, C++/Qt, QML, Python, HTML, CSS, JavaScript, TypeScript, , Bash, Shell Scripting
Frameworks: Flask, Django, React, Vue, Node.js, Express.js, QtQuick, Bootstrap, Bulma, Tailwind, Scikit-learn, Pydantic
Databases: MySQL, PostgreSQL, Sqlite, MongoDB, AWS RDS, Google Cloud Datastore
Tools: Git, GitHub, Gitlab, Bitbucket, Unix Shell, VS Code, Datadog, Sentry, Wireshark, Tableau, Weka
AI Tools: GPT, GPT-Codex, Codex, Claude, Claude Code, Claude Code SDK, Anthropic AI, ElevenLabs, OpenAI Whisper, Gemini, Gemini Studio, Gemini SDK, Langchain, Pydantic AI, Instructor
Technologies: Git, SVN, Docker, Kubernetes, Vagrant, Supervised Learning, Decision Tree Classifiers