JU YOUNG KIM

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LinkedIn
GitHub Resume

Work Experience

ProteinQure | **Senior Software Engineer** | Toronto, Canada   **July 2023 - Present**
- Engineered a monolith computational biology platform that comprises various command line tools and scripts to perform various biological calculations, data management and visualizations thereby enhancing computational protein research and drug discovery processes.
- Implemented a Slack chat bot to conveniently retrieve protein library data, utilizing technologies like Python, Google Sheet API, Kubernetes, improving wet-lab scientist's analysis and research experience.
- Worked on FastAPI, React.js/Next.js based full stack web application serving likelihood prediction of a protein library hit against a target gene on an public endpoint.

Primer | **Software Engineer** | London, United Kingdom   **February 2022 - June 2023**
- Worked in the core payment application framework team, designed and implemented Starlette based Python application framework to allow external app developers to build and release customized payment apps that integrate with third-party services in Primer's marketplace. The payment apps were the building blocks of the Primer's payment infrastructure. Led migration of old payment apps to the new framework.
- Created a FastAPI, SQLAlchemy based marketplace web services to streamline a lifecycle management of 50+ internal and external payment apps via marketplace web dashboard thereby laying the foundation for building a Primer's payment app store.
- Reduced time taken by developers to build and publish new payment apps by 80% with an automation pipeline that eliminated frequent data migrations and manual assets upload to cloud storage thereby increasing the number of apps published and deployed in the marketplace.

Root | **Full Stack Software Engineer** | Cape Town, South Africa   **April 2021 – January 2022**
- Worked in the product team, developed TypeScript, Node.js/Express.js based insurance platform backend and React.js based web dashboard providing tools for onboarded businesses to create and release new policies, pricing modules and customized features as quickly as possible.
- Implemented policy document encryption feature with web dashboard feature flag as required by data security legislation using Node.js qpdf wrapper that automatically password protects the related PDF documents before sending to clients
- Ported client's product module code execution environment from Node.js vm2 to AWS Lambda functions thereby enabling secure code execution and improving dependency management.

Praelexis | **Software Engineer & Data Engineer** | Cape Town, South Africa   **March 2018 – March 2021**
- Designed, implemented and deployed highly scalable Python web services in Azure Kubernetes Service enabling banks to productionize credit machine learning models, thus fostering innovation in their individual and business credit strategies.
- Engineered PySpark-based data pipelines, processing financial transaction data of 10-100 million rows daily consumed by the bank's machine learning workflows, utilizing technologies like Luigi, Azure HDInsight, Azure CosmosDB, Spark SQL, Databricks, thereby enabling faster launch of end-to-end machine learning products within credit departments.

Education
- University of Cape Town: **Master of Science**: Bioinformatics, 2018
- University of Pretoria: **Bachelor of Science Honors** in Bioinformatics, 2014
- University of Pretoria: **Bachelor of Science** in Biochemistry, 2013

Technical Skills
- Languages: Python, JavaScript, TypeScript.
- Backend: FastAPI, Flask, SQLAlchemy, Node.js, Express.js, PostgreSQL, CosmosDB, MongoDB
- Cloud & Data: AWS (S3, Lambda), Azure (Blobstore, AKS), Databricks, Spark with PySpark.
- DevOps: Docker, Kubernetes, Helm, Terraform, Kafka, Datadog, Elasticsearch.
- Tools: Git, GitLab, CI/CD, BitBucket, JIRA, Postman, Feature flags.