# Peter Kvac, B.Eng Electronics and Computer

# **Software Engineer (Full Stack & DevOps)**

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# **CERTIFICATIONS**

AWS Certified Cloud Practitioner

# **TECHNICAL SKILLS**

- AWS Cloud & Infrastructure,
- Docker
- CI/CD
- Java (Spring), Typescript, React, Node.js Full Stack Development
- HTML & CSS

# PERSONAL PROJECT EXPERIENCE

• My Big Day (wedding app)

#### PROFESSIONAL EXPERIENCE

FULL STACK DEVELOPER, LNG STUDIOS — JULY 2024 - PRESENT

- Al Automatic Portal Creator for Real Estate Marketing websites
  - m6.proxima-portals.com, password: m6
  - Full Stack Developer in 2 person team, using: NextJS, OpenAI API (document and image parsing and categorization, plus context creation), Replicate (image generation based off context creation) API, Tailwind CSS, S3 asset storage
  - Deploys a marketing portal for a real estate agent's pre-sale property
    - Agent can optionally provide fact sheets, marketing pdfs, floor plans, and the portal creator parses and classifies the PDF documents.
    - Next follows customizable theming and layouts inferred from the context provided above
    - If no images or for information will call Replicate API for image generation for placeholder gallery images of interior, exterior, and amenities (with the ability to regenerate) using the context parsed from the documents
    - Final product is agent portal template completely generated from context files (provided or not), and populates customizable sections for: Overview, Pricing, Floor plan, Gallery, FAQ, and Contact sections

# Proxima, Real Estate pre-sale and marketing platform

- www.nikola.proximahq.io
- Full stack developer and maintainer in 3 person team
- Stack: React with Typescript, fully custom CMS written in NodeJS, Ant Design + custom CSS
- Key developer in version 2 migration from old javascript codebase to new Typescript codebase.
- Major developer in migration of old dated styled components to new Ant Design based components
- Made application responsive for many devices: mobile, tablet (landscape and portrait), desktop, and large touchscreens (landscape and portrait) - front end heavy

#### FULL STACK DEVELOPER, INTERGALACTIC — JANUARY 2023 - JULY 2024

- South by South-West Web Scheduler and Event Management Platform, Sydney 2024 (SXSW) — <a href="https://www.sxsw.com">www.sxsw.com</a>
  - Front end developer on a team of 4 for SXSW front end experience for Sydney 2024 event, utilizing data from API, and also helped with indexing and sorting using Meilisearch for event filtering
  - Stack: Tailwind CSS, Drizzle ORM for data layer, Meilisearch

# • Ocean Networks Canada (ONC) — onc-touchscreen.dev.intergalactic.space/

- Tailwind CSS, NextJS, Strapi CMS
- Sole developer for Touch Screen interface implemented for a specific 16:9 screen resolution monitor at the Ocean Networks headquarters
- Extended client data layer in Strapi CMS to render the touch screen experience using NextJS framework. The existing CMS contains their site data on the ONC website
- Provided extensive documentation to the client on the architecture of the application, including how to update the CMS to further customize the UI

#### • Station Casinos (Collector's Charms) — www.stncharms.com/

- Full Stack Developer of charm Marketplace and associated backend business logic (using 'Agenda' schedulers and cronjobs for application logic such as the expiry of listed charms and refunding of users if a charm they bid on was outbid by another user)
  - Real time interfaces and business logic management via web sockets and web hooks
- Stack: Mantine CSS, Monorepo with NextJS, NodeJS (Fastify backend), MongoDB, Agenda scheduler (cronjob)
- Integrator of Know Your Customer (KYC) identification service using third party service (Central AMS). Required users to provide their drivers license to list charms on the marketplace for sale

- Integrator of Trustly banking widget into Marketplace. This allowed users to connect to their banking institution and deposit funds into the STN charms account. Webhooks utilized to await appropriate responses to and from the widget and effect balance changes and authorization on the backend
- Core responsibility was building the transaction logic on the NFT Charm Marketplace, this included auctions (bidding logic), direct sales, expirations (using agenda scheduling), trading of charms and funds between user accounts
  - Required building the UI/UX for these different kinds of transactions
  - Required building the business logic for the mentioned transactions, and ensuring funds are properly tallied, and transactions proceed in an all or none manner, and are securely managed
  - Required integrating with a payment provider to link a user's banking information (Trustly)
    - Specific integration with the Trustly payment widget that sends web hook authorization codes to the application to be processed and verified against user data
    - Collaborated with Trustly to pass their branding and certification criteria
  - Trading on the marketplace also required Know Your Customer verification integration with a third party (Central AMS).
  - Provided extensive documentation to the client on the architecture of the Marketplace workflows

# FULL STACK DEVELOPER, MOMENTA — OCTOBER 2022 - DECEMBER 2022

#### STAMPd Full Stack

- Integrated video streaming service API (100ms) to host a 'Celebrity' meeting platform. Interactions are between a celebrity and an individual, or a group.
- Implemented host controls over the interaction such as muting audio & video, kick, moving the next user into the featured fan queue, and ending the event
- Users receive an email of a signed video of their interaction with celebrity
- AWS and Cloudinary used to store assets like images, celebrity signatures and fan interaction videos.
- Client authentication managed by google provider, 100ms tokens, and Next
- NextJS Typescript codebase utilizing Prisma ORM with MySQL relational db data source, hosted on PlanetScale. TRPC used for type safe APIs to share types between client and server without code generation.
- Automated video processing / slicing of interactions, and e-mailing of the event videos performed on user basis

# FULL STACK DEVELOPER, FINTELICS — DECEMBER 2021 - OCTOBER 2022

# • AXIA Capital Bank Project Full Stack — <a href="www.web.axiacapitalbank.com/">www.web.axiacapitalbank.com/</a>

• Full Stack Developer and maintainer of the following services: Admin Dashboard, Web Interface, Mobile Application, Back End business logic

- Developed Admin dashboard analytics to detail user Stakings, Gift Card purchases, and user behaviour (Chart.js)
  - Data was fetched and aggregated from back end user data on a Postgres database that would run on a cron job every day
- Developed "banner" functionality from the admin dashboard, allowing communication from admins to users, plus UI components
- Developed mobile application in React Native in parallel to web platform
- Front End: Typescript, Javascript, React, Ant Design, custom CSS and HTML, including React Native (Mobile)
- Back End Technology: Postgres, Express.js, AWS, Docker, Business Logic, REST APIs, knex

#### FULL STACK DEVELOPER, EMME INNOVATIONS — JULY 2021 - NOV 2021

- Website Front-End Developer <u>www.emmeinnovations.com</u>
  - Implemented responsive, fully customized CSS Styled components utilizing React with Typescript
  - Utilized scalable Backend AWS services like GraphQL APIs (DynamoDB, AppSync, Lambda, Cognito)
  - Implemented Test Driven Development for parts of the project, i.e. wrote functional tests for components using React Testing Library (RTL) and Jest
  - Performed peer code reviews

# APPLICATION DEVELOPER, MPM ENGINEERING — DEC 2019 - APRIL 2021

- Log Optimizer Product Developer www.mpmeng.com
  - Utilized C# WPF to develop 'Log Optimizer' application, with SQL database
  - Explanation: Log Optimizer is a driver for saw mill product manufacturing. A log is run down a belt, a laser array is used to profile a log's shape on its way to the saw, a calculation is made quickly to determine the best rotation angle to ensure maximum yield and best cut of a desired product (2x4, 2x6, ...)
  - Worked with controls team on site to tune Application to actuators and sensors, to track belt speed, saw configurations, tree log images using optical scanners, and ultimately, determining the best cut for a desired wood product
  - Added configuration file history safety mechanisms to prevent configuration file corruption (the application is highly sensitive to configuration settings established during the tuning process)
  - Added image post processing features to remove/dampen noise as the log traveled down the chain, so as to distinguish wood chip noise, vibration, or sensor imperfections, and not have these data points enter the rotation calculation

# FIRMWARE VALIDATION, AVIGILON (CO-OP) — SEP 2018 - MAY 2019

IP Camera firmware & mechanical validation specialist — www.avigilon.com

- Wrote test automation scripts in Python for IP-based cameras to verify mechanical and firmware functionality for new cameras, new firmware releases, and to track any regressions
- Extended test automation suite for new camera and firmware functionality, and performed manual tests as required
- Performed Wireshark analysis to verify packet level integrity for TCP/IP at various Application layers
- Generated detailed bug and defect reports in JIRA for developers

# LINUX DEVELOPER, TANTALUS SYSTEMS (CO-OP) — SEP 2016 - MAY 2017

- Tantalus Wireless Smart Meter Diagnostic Developer www.tantalus.com
  - Wrote test automation scripts in Perl to perform batch diagnostics for wireless smart meter devices returned from field by customers; scripts determined the mechanical and radio defects and reported the results in a CSV file
  - Manually SSH into cameras to assess device issues, and execute scripts
  - Wrote thermal stress tests to verify device functionality in conditions of extreme heat and cold, and report the results in CSV file
  - Wrote batch update automation scripts, utilizing Tantalus' proprietary protocol
    to upgrade multiple devices concurrently, and also have devices update other
    devices in stages by sending packets wirelessly

EDUCATION B.ENG

Simon Fraser University — Computer Engineering and Electronics, SFU, 2012-2019 Co-op placements: Tantalus Systems (8 months), Avigilon (8 months)