The GUI-fication of Neovim

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Hi 🙋‍♀️

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Bryan  Ryan  Manuel

Tal  Akin
Talking Points

- What is Oni?
- Oni's Architecture
- Oni's Extensibility
- Where are we now?
- The Future of Oni
What is Oni?

Oni is a Graphical User Interface (GUI) for Neovim.

It allows users to have all the power of modal editing without the limitations of a terminal UI.
But Oni does more than that.

Oni allows Neovim to have features of an IDE such as integration with language servers & more advanced syntax highlighting.
Syntax Highlighting 😍

```javascript
import * as React from 'react';
import { RouteComponentProps } from 'react-router-dom';
import {
    GET_LINE_STATUSES,
    GetLineStatusesQuery,
} from './graphql/queries/tfl';
import Tubelines from './components/organisms/tubelines';
import { RouterContext, Route, RouteComponentProps } from 'react-router-dom';

export default class TubelinesContainer extends React.PureComponent<Props> {
    handleClick = (line: string) => () => {
        this.props.history.push(`/lines/${line}`);
    };

    render() {
        return (
            <GetLineStatusesQuery
                query={GET_LINE_STATUSES}
                pollInterval=10_000
                displayName="GetLineStatuses"
            >
                {({ data, error, loading }) => {
                    <ErrorBoundary
                        onError={error => { return; }}
                        onExit={error => { return; }}
                    >
                        {loading ? <Loading /> : null}
                        {data ?<Tubelines
                            lines={data.lines || []}
                            onClick={this.handleClick}
                        /> : null}
                    </ErrorBoundary>
                }}
            </GetLineStatusesQuery>
        );
    }
}
```

Theme ⇒ Night Owl
Language Server Features

```javascript
initVimNotification.setContents("init.vim found",
`We found an init.vim file would you like Oni to use it?
This will result in Oni being reloaded`,
)

initVimNotification.setButtons([ ]
{ title: "Yes",
callback: () => {
    this._configuration.setValues(
        { "_internal.hasCheckedInitVim": true, "oni.loadInitVim": true },
        true,
    )
}
)
commandManager.executeCommand("oni.debug.reload")
```

Akin, 7 months ago, Feature: add prompt to use init vim if one is found
Oni's Architecture

Oni is an electron app, written with React & Typescript which speaks with Neovim via it's msgpack API. The editor text is rendered via webgl or canvas.
Where are we now? 😐

Some of Oni's most recently implemented features include –

- **Syntax highlighting** based on Textmate
- **File explorer** - which prioritises navigation via the keyboard using vim-like mappings
- **Git Integration** - Only git is supported right now but the framework exists to add more version control providers
- **Achievements** - This functionality is aimed at getting new users interested in learning to use vim
- **Browser Extension** - This allows users to open a browser as an oni split as an oni split.
5min Demo🙏😢
Extensibility
Oni can be extended via plugins.

```javascript
const activate = Oni => {
    // Create a new status bar item using oni's api
    const gitHubRepoItem = Oni.statusBar.createItem(1, gitHubRepo)
    // We use react and export it as a dependency for plugins to use
    const React = Oni.dependencies.React
    // Create a command a user can call from the command palette
    const openGitHubRepoCommand = () => {
        Oni.commands.executeCommand("browser.openUrl", "https://github.com/onivim/oni")
    }
    const setGitHubRepo = () => {
        const gitHubIcon = Oni.ui.createIcon({
            name: "github",
            size: Oni.ui.iconSize.Default,
        })
        const element = React.createElement("div", { onClick: openGitHubRepoCommand }, gitHubIcon)
        gitHubRepoItem.setContents(element)
    }
    setGitHubRepo()
    gitHubRepoItem.show()
};
module.exports = {
    activate
};
```
Some Oni Plugins
Git Blame Plugin

```javascript
const ligaturesEnabled = this._configuration.getValue("editor.fontLigatures")
if (this._configuration.getValue("editor.renderer") === "webgl") {
  new WebGLRenderer(ligaturesEnabled)
} else {
  new CanvasRenderer()
}
```
Image Layer Plugin
# CSV Layer Plugin

**1799_test.csv**

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**CSV PREVIEW - */users/akinyuli/Desktop/Coding/oni/test/collateral/1799_test.csv***

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Where are we going?
Performance has always been one of the major advantages of using vim, it has always had a very quick startup time and not been too memory intensive.
We feel that whilst electron and typescript have provided us the advantages of the ecosystem the performance tradeoff might be too great. So...
We are prototyping Oni V2 (reOni?)

which will use a highly performant ReasonML based desktop application framework we are developing called Revery.
reOni (Oni V2) Proposed architecture
Useful Links

- Oni website - https://www.onivim.io/
- Oni Repository - https://github.com/onivim/oni
- Discord Link - https://discord.gg/7maEAXV
- Revery - https://github.com/bryphe/revery
- Revery Quick start - https://github.com/bryphe/revery-quick-start
Questions?