James (Alex) Pakis

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Profile

Experienced software engineer with history in full-stack development, code generation, and language processing. Proficient in building web applications using React, TypeScript, and Apollo GraphQL. Knowledge with using Xtend for code generation and Xtext for building domain-specific languages and parsing solutions. Passionate about performance, scalability, and seamless integration of innovative software solutions.

Education

University of Memphis January 2018 – December 2022

Bachelor of Science in Computer Science

Experience

Software Engineer II, Technergetics, LLC. January 2024 – October 2024

- Contributed to the VS Code extension modeling toolkit, providing document editors for modeling.
- Developed and maintained full-stack web applications leveraging React, TypeScript, and Apollo GraphQL.
- Built new components from the ground up and implemented tests using Jest and React Testing Library.

Junior Software Engineer, Technergetics, LLC. October 2022 – January 2024

- Utilized Xtend, a Java dialect, for model-to-text and model-to-model transformations in Sparx EA models.
- Developed a document editor extension for VS Code to enhance modeling capabilities inside the IDE.

Projects

- Pywinmeter

  A Windows desktop application that allows control of Windows Audio Sessions, Endpoints, and Devices via the Windows Core Audio API. If the user has EqualizerAPO installed, they can also customize their frequency equalization configurations. Built to get a better understanding of the Model View View Model design pattern.
- VS Code Model Document Editor

  A modeling toolkit designed to provide a document editor within the VS Code IDE. The approach utilized the VS Code API to register a custom document editor that provided a webview to the assigned file type that provided the user with a drag and drop node graph view where users could define model elements and assign them types based on defined Typescript interfaces to create UML-like (not to spec) models without leaving the IDE window.

Skills

Languages: TypeScript, JavaScript, Java, Python, Xtend

Technologies: Xtext, Parsers, Eclipse IDE, UML Specification, React, Jest, React Testing Library, Apollo GraphQL, VS Code Extension API, Git