Peramanthan Sathyamoorthy

Curriculum Vitae

Senior Software Engineer and naturalized Swedish citizen of Indian origin with over 9 years of experience in building scalable web applications and leading development teams. Holds Master's degrees in Computer Science and Operations Research, providing a strong foundation in both theoretical and applied aspects of technology and optimization. Proven expertise in JavaScript, TypeScript, React.js. Demonstrated leadership in integrating innovative solutions and driving efficiency in startup environments. Experienced educator with a passion for mentoring and fostering innovation through technology.

Recent Relevant Recorded Experiences

Jan 2023 - Dec 2024 Senior Software Engineer (24 months), Oneflow AB, Digital Signature and Contract

Management Platform, Stockholm

- Strategically integrated TypeScript into a mixed legacy codebase with FlowType and JavaScript, resulting in a 70% reduction in type-related errors, significantly enhancing code reliability and maintainability. Leveraged previously introduced zod's type inference for robust type hinting in business data.
- Automated the conversion of JavaScript modules to TypeScript with a custom script preserving version control history, saving over 200+ hours of manual work, accelerating development timelines.
- O **Unified distributed ACL permissions** into a single utility module, managing complex contexts and user roles (owner, guest) to simplify maintenance, migration and enhance scalability.

Oct 2021 - Dec 2022 Engineering Team Lead (15 months), Oneflow AB, Stockholm

- O Co-led the development of a new JSON-based rich text editor seamlessly integrating with legacy HTML, increasing user satisfaction by 60% and providing a modern, cohesive editing experience.
- O Mentored and empowered the development team to a self-organizing model, overseeing hiring and onboarding while instilling a continuous improvement culture. This resulted in increased productivity, stronger ownership, and scalable team practices.
- Pioneered an end-to-end testing transformation with Playwright, starting with an innovative approach to replicate mob testing scenarios. This significantly reduced regressions and boosted efficiency. Later, I spearheaded a complete rewrite of the end-to-end testing suite in Playwright.
- Engineered a lightweight Zod-based data validation library which streamlined data validation and minimized runtime errors.

Mar 2019 - Sep 2021 Full Stack Integration Engineer (31 months), Oneflow AB, Stockholm

- Established the Integration Team from the ground up, creating foundational processes and best practices for long-term scalability, while strategically aligning integration solutions with business needs.
- O **Designed multi-client applications** with Python and React.js, facilitating seamless integrations with platforms like HubSpot and SuperOffice, expanding Oneflow's reach and interoperability.
- O Stabilized and enhanced the Public API, which enabled a robust third-party integration ecosystem, contributing to client satisfaction and platform versatility.

Apr 2017 - Feb 2019 JavaScript Developer(23 months), Oneflow AB, Stockholm

- Innovatively Integrated React Router into a Backbone.js-based client to build Identity and Access Management, facilitate faster prototyping cross-linked user management and efficient testing
- Optimized CI build processes, reducing build times by 40%,
- O Contributed to modernizing the legacy codebase by transitioning to React.js.

(1 year 3 months)

Jan 2016 - Mar 2017 Full Stack Developer, Weavler AB, An accessible e-commerce platform for artisans with 1.6M SEK PTS grant 2015, Stockholm

- O Managed AWS cloud infrastructure, reducing operational costs by 40%.
- O Administered MongoDB databases, ensuring high availability and performance.
- Integrated services like Mandrill, Slack bots and PayPal, enhancing platform functionality.
- O Created an intelligent notification and chat bot for onboarding and FAQs.
- Implemented SEO strategies with server-side rendering.
- O Developed a open source babel plugin to quickly implement translations to the entire project.
- O Enhanced accessibility with text customization and color filters, aligning with WCAG standards.
- Experimented advanced features like speech synthesis and recognition, improving accessibility.
- O Designed responsive email templates for email clients and browsers.

Internships

Jul 2015 - Sep 2015 Software Engineer Intern (Summer Project), Bumbee Labs, Stockholm

- (3 months) O Applied MongoDB aggregation framework and map-reduce to generate pre-aggregated and structured reports from millions of samples with raw data.
 - Enhanced full-stack dashboard application with gulp build and assisted implementing Key Performance Indicators.
 - O Explored the feasibility of migrating the tech stack to Reactjs and the Eve Python framework.

Top Software Engineering Skills at Work

Development Git, JavaScript, TypeScript, Reactis, Redux, Alt.is, MongoDB, AWS, Bamboo(CI/CD)

Practices Agile, TDD, BDD, E2E, Pair/Mob Programming and Testing

Soft Skills Leadership, Team Building, Mentorship, Cross-Team Collaboration, Strategic Epic Planning, Problem-Solving, Communication, Creative Thinking

Recent Certifications and Courses (September 2024 - Present)

Terraform HashiCorp Terraform Associate Exam Cram [O'Reilly Live Event] 2 days Live Course

Langchainjs LangChain Chat with Your Data

Langchain.js Build LLM Apps with LangChain.js

Open Source Contributions

Jan 2017 - Feb 2017 Babel Plugin: FormatJS compatible react-intl translation hint modules generator

Publications

2017 Profiling Energy Efficiency and Data Communications for Mobile Internet of Things

2015 Energy Efficiency as a Orchestration Service for the Mobile Internet of Things

Familiar Technologies

AGI & Infra New LangChainis, LLMs, Terraform, AWS SageMaker and AWS Bedrock

Workflow Graphite(Stacking PRs)

Fullstack Remix, Nextjs, Astro, Solid-start

Languages C, C++, Java, R, Erlang, Rust, Elixir

Data Science & ML R, Python, NumPy, Panda, Scikit-learn

Front-End tools Esbuild, Viteis

API Frameworks Django, Flask, Eve

Databases MySQL, Postgres, MongoDB

Deployment AWS(EC2, S3, IAM, ELB), Heroku, Netlify, Vercel, Fly.io

Miscellaneous Data Visualization, KPI Implementation, SEO Optimization, Accessibility Compliance, Speech Recognition, Chat Bot Development

Education

- 2010 2016 Master of Science in Computer Science, Uppsala University, ■, Grade: 3.92/5

 Thesis: Enabling Energy-Efficient Data Communication with Participatory Sensing and Mobile Cloud, Cloud-assisted Crowd-sourced Data-driven Optimization
- 2007 2009 Master of Science in Operations Research and Computer Applications, National Institute of Technology, Tiruchirappalli, Tamilnadu, —, Grade: 8.08/10
- 2004 2007 Bachelor of Science in Mathematics, *Kadhir Mohideen College*, Affiliated to Tiruchirappalli Bharathidasan University, Adirampattinam, Thanjavur, Tamilnadu —, Grade: 74.09 %