# Nikita Shalimov

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# Projects

Live | Github SimplyNote, React.js, Rails, PostgreSQL.

A full-stack note-taking app with Redux architecture and a RESTful JSON API

- o Built a dynamic, seamless, frontend view layer with notes index and RichText editor components
- o Achieved real-time note editing by leveraging AJAX requests to communicate with the Rails backend
- Optimized note searching functionality by pre-loading data from the Rails API

Live | Github Pathfinder.js, JavaScript (ES2015), HTML5.

An interactive visualizer of four common pathfinding algorithms

- o Implemented A\* and Dijsktra Search algorithms on a 2D grid, as well as underlying data structures
- Conducted user tests to achieve intuitive visual interface and improved UX

Live | Github Schemer, Vue.js, JointJS, Express, Node.js, MongoDB.

A visual database design tool that generates SQL code in real time

- o Developed with a brand new stack, designed and took project to MVP completion in a week
- o Implemented a unidirectional data flow using Vuex, resulting in DRY code usable by the whole team

### Skills

Ruby, Ruby on Rails, JavaScript, React.js, Redux, Vue.js. jQuery, SQL, HTML5, CSS3, Git, C++, MatLab, LaTex

### Experience

2013–2017 Mathematics Adjunct Instructor, UC Berkeley, Berkeley, CA.

- o Led course with 60+ students focusing on Linear Algebra and study habits
- o Designed a semester of curriculum, including bi-weekly lectures and assignments
- o Motivated students in group office hour sessions spanning 20+ hours per week, resulting in an average improvement of 0.4 grade points

2014–2016 Student Researcher, Lawrence Berkeley National Laboratory, Berkeley, CA.

- o Implemented and tested Multijet Background Templates, an algorithm to process and analyze 5+ TB of physics data
- o Delivered scientific findings in time for the International Conference on High Energy Physics

## Education

2012–2016 BA, Applied Mathematics and Physics, UC Berkeley.

GPA: 3.9