Timothy James Barrett
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EDUCATION

- **Stevens Institute of Technology** — Hoboken, NJ
  Bachelor of Science in Computer Science — *Sep. 2016 - May 2020*

WORK EXPERIENCE

- **Allvue Systems** — New York, NY
  Application Engineer, Operations — *July 2020 - Present*
  - Identified errors in XML response/request data, XSLT configurations, and product code – resolved with XPath and SQL debugging queries.
  - Designed and delivered SQL scripts for client production environments to resolve trade data inconsistencies with back office providers.
  - Managed product expectations and functionality for client base of over 50 different hedge funds, firms, and investment banks through email and phone.
  - Implemented Salesforce database searching for proprietary Chrome extension increasing documentation cross-referencing productivity for 30 engineers.

- **New Jersey Innovation Institute** — Newark, NJ
  Project Assistant and Consultant, Innovation Services — *June 2019 - Aug. 2019*
  - Created the project prioritization system for incubation of high ROI solutions within physician networks, securing a $1,000,000 contract.
  - Negotiated directly with client executives to ensure operation within project budgets.

PROJECTS

- **Workout Split Planner (exercise-planner.vercel.app)** — Haledon, NJ
  Personal — *January 2022*
  - Deployed and managing a React interactive workout routine builder designed for optimizing and visualizing weekly exercise volume and timing with over 1300 exercises from the ExerciseDB API.
  - Modified the drag-and-drop library react-beautiful-dnd into controlled components to manipulate all states using efficiently using hooks.
  - Utilized memoization to reduce render lag during client-side state updates.
  - Visualized aggregated routine data using responsive composed graphs from the recharts library.

- **Total Daily Expenditure Estimator (tdee-calculator.vercel.app)** — Haledon, NJ
  Personal — *January 2022*
  - Deployed a component-based React webapp for calculating caloric intake requirements based on human measurements using the Mifflin St-Jeor formula.
  - Utilized nested component mapping to efficiently list tables of macronutrient splits (protein, carbs, fat) for weight maintenance, loss, and gain.
  - Worked with a base of over a dozen current users to implement new features and increase accuracy.

- **Stevens Shuttle System** — Hoboken, NJ
  Student — *August 2019 - May 2020*
  - Collaborated with students on Senior Design Project to create a user-friendly bus schedule application, increasing arrival time accuracy from 20 to 98 percent.
  - Exercised AWS Lambda operations to compile raw location data from third party bus API.
  - Utilized unsupervised machine learning to group bus data and predict arrivals within 2 minutes.
  - Built a responsive React application to display predicted schedules for student use on both mobile and desktop devices.

TECHNICAL SKILLS

Languages	JavaScript, Java, Python, TypeScript, SQL, GraphQL, C#, XSLT, XML
Technologies & Libraries	React, Redux, Node.js, Express, REST APIs, HTML, CSS, AWS Lambda
Tools	SQL Server Management Studio, Webstorm, Visual Studio, Git, TortoiseSVN
Databases	MySQL, MongoDB, Redis