

## **ABSTRACT**

**Rofi, Mochamad Imron.** *“The Development of Android Based Application of the Shortest Route to the Location of Health Facilities in Malang”*. **Advisors: (1) Ely Setyo Astuti, ST., MT., (2) Hendra Pradibta, SE., MSC.**

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*Data collection and citizens of Malang city often find difficulties in finding a location of Health facility located in The City of Malang, especially those that cooperate with Social Security Administrator of Health (BPJS) of Malang City. The citizens still do not know the shortest route to the location of the health facility. In this thesis, an application that can give the user information regarding the health facility they want to visit is developed to optimize the shortest route to the selected health facility location using the A\* algorithm applying Heuristic Search, a technique that develops efficiency in the search process. The search has information about cost to achieve the objectives of the initial location. The result of A\* algorithm implementation in the shortest route search application to the health facility location in Malang city helps users find the health facility and the shortest route to health facility location.*

**Keywords:** *shortest route, health facility, A\* algorithm, heuristic search*